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Regional Patterns of Migration in Nepal

Harka Gurung

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ABSTRACT Nepal has been experiencing rapid population growth in recent decades. Another significant demographic feature is the increasing volume of population redistribution. This paper presents an overview of migration in Nepal over the last three decades based on census data and selected survey reports. During the period 1952/54–1981, regional population growth rates varied from 1.22 percent in the Mountain and Hill zones to 3.34 percent in the Tarai and 3.46 percent in the Inner Tarai. Much of this regional differential in growth rate was due to migration. The principal migration trajectory was from the highlands to the Tarai lowlands. The last two decades recorded about a sevenfold increase in out-migrants from the highlands and about a sixfold increase in in-migrants to the lowlands.

Increasing pressure of population on limited land resources induced the out-migration from the highlands. In the past, out-migration was primarily directed outside the country to new frontier lands in the eastern Himalaya and for military and other service in India. Since the mid-1950s, there has been a major shift in the migrants' destination. The opening of the lowlands through malaria control and resettlement programs provided a new frontier for large-scale rural-to-rural migration. Other forces accentuating migration to the lowlands were the concentration of infrastructural and development activities there. Immigration from high-density areas across the open border with India is growing, as well. Thus the lowlands have now emerged as the area of migrant convergence from within and outside the country.

The consequences of migration are most apparent at the destination: The lowlands are undergoing significant changes in demographic character, social composition, land use, and economic development. Recent economic and demographic processes have all the potential of transforming the lowlands into a dynamic region. This development has various policy implications for Nepal's population redistribution, spatial development, and sociopolitical future.

INTRODUCTION

Nepal covers an area of 147,181 square kilometers mainly along the southern slope of the central Himalaya. The relief is rugged with a wide variety of terrain. About 28 percent of the land surface lies more than 3,000 meters above sea level, including about 5,000 square kilometers under permanent snow. Over 60 percent of the land is between 300 and 3,000 meters in elevation; only 11 percent is below 300 meters. The rise of the land from south to north is not abrupt but rises through a succession of ranges arranged *en echelon* with intervening depressions that are inhabited. These habitation zones include the Tarai plain (the tropical lowlands), the Inner Tarai valleys, the hill complex, and high elevated valleys (Gurung 1971).

In terms of population geography, the country represents a transition zone between the densely populated Gangetic plain and the barren marches of the Tibetan plateau. Thus rural population density within the country ranges from 300 persons per square kilometer in some Tarai districts to only 3 persons in certain Mountain districts. In addition to this contrast in altitude, there are east–west sectoral variations due to the lateral disposition of the country between longitudes 80°4 to 88°12 east and latitudes 26°22 to 30°27 north. The more humid and wetter eastern part of the country supports a larger proportion of the total population.

The last census of population, taken in June 1981, recorded a total population of 15 million of which 51.2 percent were males. The division by age group was 43 percent below 15 years, 54 percent between 15 and 64 years, and 3 percent above 64 years, yielding a high dependency ratio of 0.86. This census recorded a crude birth rate of 42 and a crude death rate of 19 per 1,000 per year. The infant mortality rate was 150 per 1,000 live births; the total fertility rate was 6.3 live births per woman of ages 15 to 49. Life expectancy at birth was 47.5 years for males and 44.5 years for females. The average annual rate of population growth for the intercensal period 1971–81 was a high 2.66 percent.

Data Sources

The vital registration system in Nepal is still in its preliminary stage. This paper is based primarily on census data since 1952/54, when the first modern census was made. Migration data in the various censuses, however, show a wide divergence both in scope and in unit of enumeration (Table 1). The 1952/54 census included migration data only on the population absent from home for more than six months. The absentee population in-

Table 1. Census data on migration and unit of enumeration: 1952/54, 1961, 1971, and 1981

	1952/54		1961		1971		1981	
Item	District	Region	District	Region	District[a]	Region	District[a]	Region
Number of census districts and regions	55	9	55	10	75	10	75	15
Place of birth			•	•	•	•	•	•
Duration of stay								•
Population absent								
Inside country	•	•	•	•				•
Outside country	•	•	•	•			•	•
Reasons for migration								
Inside country								•
Outside country							•	•
Foreign-born			•	•	•		•	
Duration of stay							•	
Reasons for migration							•	
Foreign citizens			•	•	•		•	•

Source: Nepal, DOS (1957); Nepal, CBS (1967, 1975, 1984).

a. Census and administrative districts correspond in areal extent.

cluded both those reported inside and outside the country. The 1961 census covered data on place of birth, absentee population, foreign-born population, and foreign citizens. These data were presented at the census district and regional levels. The 1971 census did not include data on absentee population (Nepal, CBS, 1977). It provided data on place of birth both at district and regional levels. Data on foreign-born and foreign citizens were given at administrative district and zonal levels. The 1981 census includes migration data on various aspects. Data available both at district and at regional levels are population absent outside the country, foreign-born population, and foreign citizens. Data on place of birth (Nepal-born), duration of stay, absentee population inside the country, and reasons for migration are given only at the regional level.

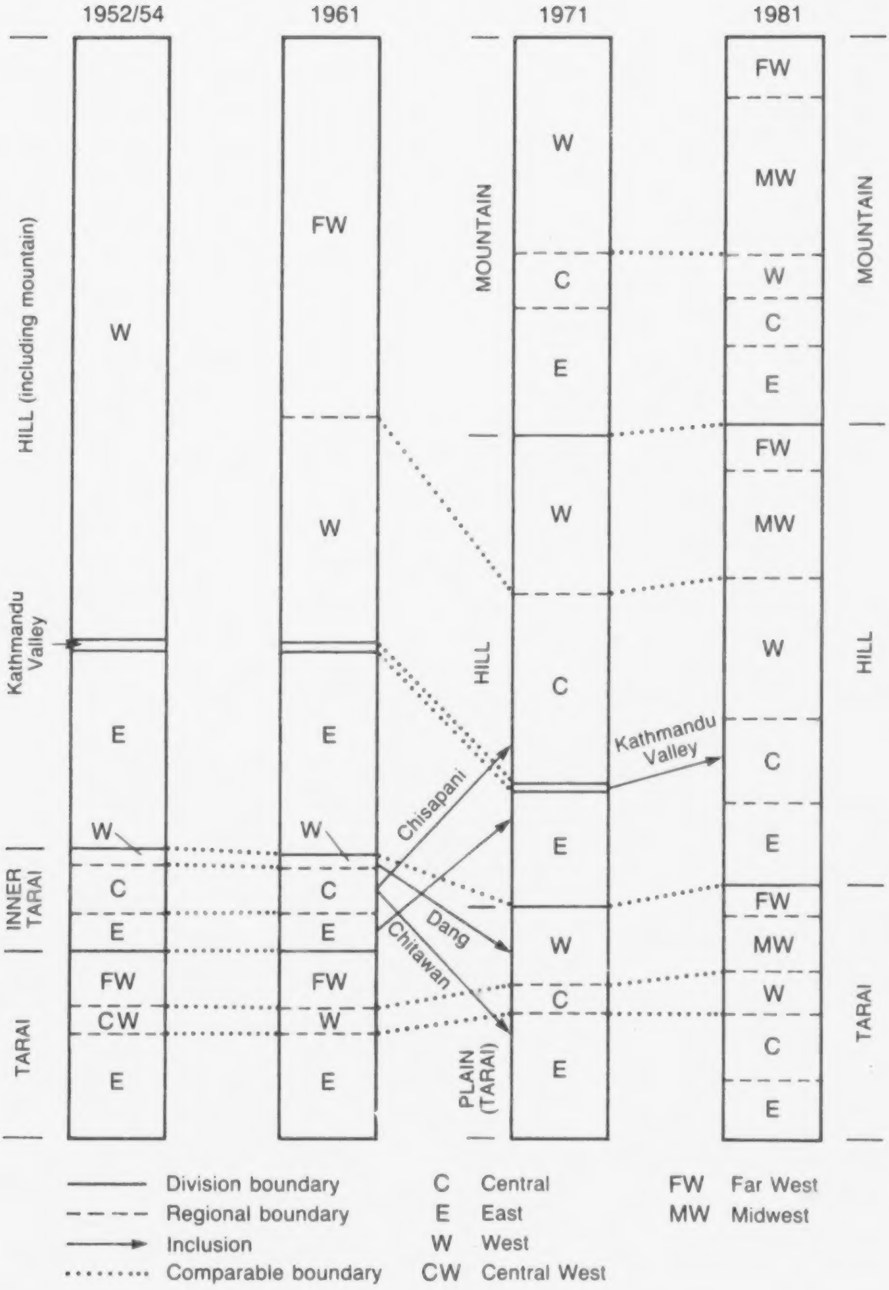
Since none of the Nepalese censuses provides data on the place of previous residence, the measure of migration is based on the comparison of data on place of birth (origin) and place of enumeration (destination). The analysis of data on migration is based on respective census regions of 1961, 1971, and 1981 that are not comparable. A major problem in comparative analysis of Nepal's population in spatial terms is the constant change in the boundary of regions and their number from one census to another (Figure 1). The censuses of 1952/54 and 1961 recognized four major natural zones: Hill, Kathmandu Valley, Inner Tarai, and Tarai. These regions were subdivided into nine census regions in 1952/54 and 10 census regions in 1961. The regions in the two censuses were comparable except in the case of the Western Hill, which was subdivided into Western Hill and Far Western Hill in 1961.

There was a major realignment of zones and census regions in 1971. The Inner Tarai was subsumed under either the adjoining Hill or the Tarai zones. Moreover a new zone, the Mountain, was created out of the northern part of the Hill zone. The three main zones (Tarai, Hill, Mountain) were subdivided into three east-west sectors. Kathmandu Valley was retained as a distinct region. Thus there were 10 census regions in 1971.

The regional division in the 1981 census was yet another major departure from that of 1971. It retained the three basic zones of the Tarai, Hill, and Mountain and included Kathmandu Valley under the Hill division. These three natural divisions were further subdivided according to the five development regions: Far West, Midwest, West, Central, and East. The combination of three natural divisions and five development regions yields 15 census regions. Most census data on migration are given according to these regions (Nepal, CBS, 1984: vol. II).

Regional Division

Population redistribution through migration can be taken as an indicator of relative development among regions and provides a useful basis for spatial planning. Thus there is need for a more realistic definition and divi-


1952/54
1961
1971
1981
HILL (including mountain)
Kathmandu Valley
INNER TARAI
TARAI
MOUNTAIN
HILL
PLAIN (TARAI)
MOUNTAIN
HILL
TARAI
W
E
W
C
E
FW
CW
E
FW
W
E
W
C
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FW
MW
W
C
E
FW
MW
W
C
E
FW
MW
W
C
E
Chisapani
Dang
Chitawan
Kathmandu Valley
Division boundary
Regional boundary
Inclusion
Comparable boundary
C Central
E East
W West
CW Central West
FW Far West
MW Midwest

Figure 1. Changes in census regions: 1952/54–1981

Source: Various censuses.

Note: The subdivisions in each bar are proportional to regional land areas.

sion of regions. The basic objective of regionalization is to define areas of homogeneity or similar value in spatial terms. The object of inquiry may be a particular element or composite of elements. Geographic regions that encompass both natural and cultural phenomena represent the composite category. In the case of Nepal, a set of geographical regions can be based on the combination of north-south natural divisions and east-west drainage basins.

The north-south or altitudinal perspective yields four basic zones of human occupance: Mountain, Hill, Inner Tarai, and Tarai. These differ in vegetation type, cultivated plants, domesticated animals, and seasonal rhythm due to vertical zonation of ecological conditions. The east-west sectoral division conforms to the three major drainage basins of the Kosi (east), Gandaki (center), and Karnali (west). These sectors also represent broad culture areas. The east is the home of numerous tribes, the west is the native area of caste groups, and these two social groups interface in the central basin. The matrix of four vertical elevation zones and three drainage basins provides a set of 12 geographic regions. As well, Kathmandu Valley deserves a separate regional identity within the Hill zone owing to its unique metropolitan character. Thus one can conceive of 13 geographic regions as shown here:

	Drainage basins		
Elevation zone	Western (Karnali)	Central (Gandaki)[a]	Eastern (Kosi)
Mountain (temperate)	1. Western Mountain	2. Central Mountain	3. Eastern Mountain
Hill (subtropical)	4. Western Hill	5. Central Hill	7. Eastern Hill
		6. Kathmandu Valley	
Inner Tarai (tropical)	8. Western Inner Tarai	9. Central Inner Tarai	10. Eastern Inner Tarai
Tarai (tropical)	11. Western Tarai	12. Central Tarai	13. Eastern Tarai

a. Including upper Bagmati.

In this paper, I have adopted these regional divisions wherever the data permit such an approach (Maps 1, 2, 5, and 6). This scheme applies particularly to the treatment of historical, cultural, economic, and most demographic aspects. In the case of migration data that are not amenable to regrouping into 13 geographic regions, the presentation is according to the 15 census regions (Maps 3 and 4).

I have used various regional terms in this paper. Sector refers to the east-west division of the country according to the three major river basins. Elevation zone refers to the four natural divisions of Mountain, Hill (including Kathmandu Valley), Inner Tarai, and Tarai. Macro region refers to the highlands including Mountain and Hill elevation zones as contrasted to the lowlands, which include the Inner Tarai and Tarai. Geographic region refers to the various subdivisions of the four elevation zones. Census region refers to the subdivisions according to the official threefold ecological division of the five development regions.

POPULATION GROWTH AND DISTRIBUTION

Growth Process

The first census of Nepal, taken in 1911, recorded a total population of 5.63 million. The next two censuses recorded successive declines: 5.57 million in 1920 and 5.53 million in 1930 (Nepal, DOS, 1957: pt. I, sec. 1, table 6). The census of 1941 recorded a total population of 6.28 million and indicated an increase of 11.5 percent in three decades. Since then there has been a steady increase in Nepal's population. The total population recorded in subsequent censuses was 8.47 million in 1952/54,[1] 9.41 million in 1961, 11.56 million in 1971, and 15.02 million in 1981 (Appendix Table 1). The census of 1952/54 is considered more reliable than the previous efforts, and it also provides a basis for comparison at the regional level. The increase in population during the period 1952/54–1981 was 81.9 percent at an average annual growth rate of 2.16 percent. The intercensal growth rates show an accelerating increase: 1.65 percent for 1952/54–1961, 2.07 percent for 1961–71, and 2.66 percent for 1971–81.

The change in the size of regional population during 1952/54–1981 gives some idea of the volume and trend of population redistribution. Compared to an average growth rate of 2.16 percent for the period, regional growth rates varied from 1.22 percent in the Mountain/Hill zone to 3.34 percent in the Tarai and 3.46 percent in the Inner Tarai (Table 2). The Western Tarai and Western Inner Tarai recorded very high growth rates of 4.79 and 4.71 percent respectively. In the Mountain/Hill zone, Kathmandu Valley was the only region to exceed the national average in growth rate. Eastern Hill recorded the lowest growth rate, 1.01 percent.

Consequently, the share of total population in the Mountain/Hill zone declined from 65.3 percent in 1952/54 to 51.3 percent in 1981 while the share of the Tarai increased from 28.8 to 40.1 percent during the same period (Table 2). The population share of the Inner Tarai increased from 5.9 to 8.5 percent. The total population increased by 82.4 percent in the Eastern, 73.7 percent in the Western, and 70.9 percent in the Central sector of the country.

---

[1] The 1952/54 census recorded 8.47 million as the total population and 8.26 million as the present population. (Nepal, DOS, 1957: pt. I, sec. 1, tables 1 and 2).

Table 2. Population share, growth rate, and density by region: 1952/54–1981

Region	Population (%)		Growth rate (%)	Density (persons/km^2)		Increase in density (persons/km^2)
	1952/54	1981	1952/54–1981	1952/54	1981	1952/54–1981
Nepal	100.0	100.0	2.16	57.6	102.1	+44.5
Mountain and Hill	65.3	51.3	1.22	53.3	74.4	+21.1
West	18.0	13.4	1.13	32.3	42.5	+10.2
Central	21.9	17.6	1.54	64.7	92.3	+27.6
Kathmandu Valley	4.9	5.1	2.25	462.5	852.4	+389.9
East	20.4	15.2	1.01	64.5	85.3	+20.8
Inner Tarai	5.9	8.5	3.46	34.0	87.6	+53.6
West	1.5	2.9	4.71	23.1	80.0	+56.9
Central	2.1	3.4	3.85	38.8	108.3	+69.5
East	2.3	2.3	2.23	42.0	75.4	+33.4
Tarai	28.8	40.1	3.34	84.7	209.1	+124.4
West	2.8	5.5	4.79	25.6	90.3	+64.7
Central	4.3	6.4	3.64	69.4	182.1	+112.7
East	21.8	28.1	2.99	128.2	295.0	+166.8

Source: Appendix Tables 1 and 2.

Density of population increased in all regions. There were 390 more persons per square kilometer in Kathmandu Valley compared to the national average increase of 44.5 more persons per square kilometer (Table 2). Density increases were high in the Tarai, particularly in the Eastern and Central sectors. Western Mountain/Hill recorded the lowest increase in density followed by Eastern Mountain/Hill (Table 2). The increase of persons per square kilometer was 22.5 in the Western, 44.1 in the Central, and 67.9 in the Eastern sector. Thus, the increase in population density was more pronounced in the south than the north and in the east than the west.

A comparison of 1971 and 1981 data after due adjustment of district boundary changes of 1975 reveals a significant contrast in population change by geographic region (Gurung 1981). The population of the country increased by 3.46 million during the decade 1971–81 (Appendix Table 2). Of this increase, 68.9 percent was in the lowlands and 31.1 percent in the highlands. Nine Tarai districts registered the highest absolute increases exceeding 100,000 persons; four Mountain districts recorded an absolute decline ranging from 415 to 6,454 persons.

The total population increased by 30 percent during 1971–81. Of the 75 districts, increases in 24 exceeded the national average: one Mountain, four Hill, five Inner Tarai and 14 Tarai districts (Appendix Table 2). Of the

36 Hill districts, only four had more than a 30 percent population increase. A high increase in Mugu and a decrease in adjacent Humla in the Western Mountain region may be attributed to errors in population adjustment according to the boundary change of 1975. In broad regional terms, the population increase for 1971–81 was progressively higher from north to south. The increases in the Tarai and Inner Tarai were 50.3 and 40.7 percent respectively. It was 15.9 percent in the Hill region and 12.0 percent in the Mountain Zone. Percentage increases were higher in the west, both in the Tarai and Inner Tarai. Taking the aggregate of regions from east to west, there was a slight variation in percentage increase: 28.0 percent in the Central sector to 30.3 percent in the East and 32.9 percent in the West.

Compared to the national average growth rate of 2.66 percent during 1971–81, some 51 districts of 75 had less than the national growth rate and 46 of these were Mountain and Hill districts (Appendix Table 2). Four Mountain districts recorded absolute declines. Four contiguous districts in the West and Central sectors and nine Mountain and Hill districts in the East had very low growth rates. Of the 11 districts with a very high growth rate (exceeding 4 percent), eight were in the Tarai. Among these, five Tarai districts, Morang and Jhapa in the east and Bardiya, Kailali, and Kanchanpur in the west, had growth rates exceeding 6 percent.

The Tarai as a whole recorded an average growth rate of 4.16 percent during 1971–81 (Table 3). The Inner Tarai's growth rate of 3.48 percent was also much higher than the national average. It was low for the Hill (1.48 percent) and the Mountain (1.14 percent) zones. Among geographic regions, the Western Tarai had the highest growth rate (6.62 percent) and the Central Mountain region the lowest, a decline of 1.20 percent. As a general regional pattern, growth rates were progressively higher from north to south and from east to west.

Urbanization Trend

The ratio of urban population to total population has increased progressively due to population growth and the addition of designated urban localities in subsequent censuses.[2] In 1952/54, the 10 designated urban localities had a population of 238,275 or 2.8 percent of the total population (Nepal, DOS, 1957: app. I, pt. 1). In 1961, the number of urban localities increased to 16 and their population was 366,222 or 3.7 percent of the total population (Nepal, CBS, 1967; vol. II, table 5). In 1971, the number of urban localities remained 16 as in 1961; five of these were new localities. The

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[2] In Nepal, *nagar* (town) *panchayats* are defined as urban and *gaon* (village) *panchayats* as rural. The *panchayats* are territorial divisions incorporating one or more settlement units. Again, designation of town *panchayats* is not strictly on a functional basis but is based on other criteria such as population size and administrative role. Thus of the total economically active population residing in 23 designated urban localities in the 1981 census, 63.7 percent were engaged in agricultural occupations (Nepal, CBS, 1984: vol. III, table 20).

Table 3. Area, population, density, and growth rate by geographic region: 1971–81

Region	Area (%)	1981 population (%)	Density (persons/ km²)	1971–1981 Growth rate (%)
Nepal (75)[a]	100.0	100.0	102.1	2.66
Mountain (15)	33.5	7.1	21.7	1.14
West (8)	19.9	3.5	18.1	1.67
Central (3)	5.0	0.3	6.8	-1.20
East (4)	8.6	3.3	38.7	0.90
Hill (36)	37.0	44.3	122.0	1.48
West (10)	12.0	9.9	82.2	1.44
Central (13)	14.5	17.3	121.6	1.82
Kathmandu Valley (3)	0.6	5.1	852.4	2.35
East (10)	9.6	12.0	126.9	1.04
Inner Tarai (6)	9.9	8.5	87.6	3.48
West (2)	3.7	2.9	80.0	4.03
Central (2)	3.2	3.3	108.3	3.60
East (2)	3.1	2.3	75.4	2.66
Tarai (18)	19.6	40.1	209.1	4.16
West (4)	6.3	5.5	90.3	6.62
Central (3)	3.6	6.4	182.1	4.24
East (11)	9.8	28.2	295.0	3.73

Source: Appendix Table 2.

a. The number of districts is given in parentheses.

1971 urban population of 461,938 constituted 4 percent of the total population (Nepal, CBS, 1975: vol. V, table 39). The 1981 census included 23 urban localities with a population of 956,721 or 6.4 percent of the total population (Nepal, CBS, 1984: vol. III, table 3). Urban localities were distributed as follows: 12 in the Tarai, four each in the Hill and Inner Tarai, and three in Kathmandu Valley.

The intercensal increase in urban population was 4.1 percent during 1952/54–1961, 24 percent during 1961–71, and 129.6 percent during 1971–81. The population increase of seven localities retained as urban since 1952/54 was 26 percent during 1952/54–1961, 26.3 percent during 1961–71, and 64.8 percent during 1971–81. The average annual growth rate of 23 urban localities during the last decade was 7.6 percent compared to 2.66 percent for the total population. There have been regional shifts in urban population size in favor of the Tarai. In 1952/54, the Tarai had 17.4 percent of the total urban population; the remaining 82.6 percent was concentrated in Kathmandu Valley. By 1981, the Tarai claimed 43.2 percent of the total urban population. The rest was distributed as follows: 38 percent in Kathmandu Valley, 10.1 percent in the Inner Tarai, and 8.7 percent in the Hill zone (Table 4). Urban population as a percentage of regional population in the Tarai increased from 1.7 to 6.8 during 1952/54–1981 but remained unchanged for Kathmandu Valley.

The list of prominent settlements in the 1952/54 census provides a useful basis for tracing the population of present urban localities (Nepal, DOS, 1957: app. II, pp. 2–10). The list did not include prominent localities of Kaski district including that of Pokhara town; the lack of data for Birendranagar and Mahendranagar, however, is understandable. Birendranagar (then Surkhet) was not a permanently inhabited place until the malaria eradication program was introduced there in 1964. Mahendranagar was a tropical wilderness until the headquarters of Kanchanpur district was shifted there from Belauri in 1962. The present rank of Mahendranagar as sixth among urban localities is not due to the sudden growth of urban activities, however, but to incorporation of extensive rural areas.[3]

The total population of urban localities in 1952/54 was 238,275 persons. If the population of the 21 prominent settlements (including 3,295 for Pokhara) is added, it comes to 243,583 or 2.8 percent of the total population (Table 4). The regional distribution of this population was 74.3 percent in Kathmandu Valley, 20.7 percent in the Tarai, 4.5 percent in the Hill zone, and only 0.5 percent in the Inner Tarai. Hetauda then had 189 persons and Bharatpur only 91. Biratnagar, now the second-largest city in the country, then had a population of 8,060 persons.

The overall increase in urban population during 1952/54–1981 thus comes to 292.8 percent. The average annual growth rate of 5.0 percent for urban localities was more than twice that of the total population for the same period. Urban population growth was highest in the Inner Tarai; Bharatpur and Hetauda registered extreme growth rates of 23.6 and 21.3 percent respectively. The Tarai urban localities averaged a growth rate of 7.8 percent. The growth of the Hill urban population was 7.5 percent. The urban population growth rate in Kathmandu Valley was half the national average.

Distribution Pattern

The total population of Nepal recorded in the 1981 census was 15,022,839 with an average density of 102 persons per square kilometer. Since much of the territory is marginal, being either too high or too steep, the country is heavily populated and over 91 percent of the population subsists on traditional agriculture. The distribution of population is extremely uneven due to sharp variations in topography and land resources (Gurung 1975).

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[3] Of the 16,717 persons economically active and 10 years of age and over in Mahendranagar, 89.8 percent cited agriculture as their major occupation (Nepal, CBS, 1984: vol. III, table 20).

Nevertheless, distinct patterns can be discerned that distinguish the highlands and the lowlands as contrasting areas in population size and density.

Among the geographic regions, the three in the Mountain zone covering a third of Nepal's total area have only 7 percent of the total population (Table 3). The Hill zone with 37 percent of the area has 44 percent of the population while the Tarai zone with 20 percent of the area has 40 percent of the total population. The Inner Tarai zone has 10 percent of the total area and 9 percent of the population. Kathmandu Valley, covering only 0.6 percent of the total area, has 5.1 percent of the total population. The largest concentration of population is in the Eastern Tarai. With less than 10 percent of the total area, it supports 28 percent of the total population. In contrast, the Western Mountain region with 20 percent of the total area has only 3.5 percent of the total population.

Another evident pattern is the concentration of population in the eastern sector of the country: The eastern third has 30.1 percent of the total area and 45.7 percent of the total population as against the western with 42.1 percent of the area and 21.8 percent of the population. Progressively larger population size from west to east is most evident in the Tarai, where the eastern sector has five times more population than the western sector, although it is only 1.6 times as large in area. In the Hill zone, the central sector has nearly twice the population of the western sector. It is only in the marginal Mountain region that the west leads other sectors in population size.

Population density by district and region shows a wide variation. Of the 75 districts, 19 exceed the national average of 102 persons per square kilometer (Appendix Table 2). Six districts have fewer than 25 persons per square kilometer and four of these have fewer than five persons to a square kilometer. These are all in the Mountain region where no district has a density exceeding 70 persons per square kilometer.

Four Tarai districts and the three Kathmandu Valley districts have high densities exceeding 300 persons per square kilometer. The high-density Tarai districts make a compact bloc around Janakpur, the ancient heartland of Mithila. Kathmandu and Bhaktapur districts have extreme densities exceeding 1,000 persons per square kilometer.

According to elevation zones, the Tarai has a high density of 209 persons per square kilometer (Table 3). The average density of 122 persons per square kilometer for the Hill zone also exceeds the national average. The average density for the Mountaln zone is 21.7 persons per square kilometer. Of the 13 geographic regions, six exceed the average national density and Kathmandu Valley is eight times the national average. The overall density increases from 52.9 in the West to 106.4 in the Central and 150.1 in the Eastern sector. The highlands, including the Mountain and Hill zones, cover 70.5 percent of the total area but support 51.3 percent of the total population. The density of population per square kilometer is 74.4 in the highlands and 168.2 in the lowlands.

Since Nepal is predominantly an agricultural country, the density of population on cultivated ground gives a more realistic measure of population pressure on land. According to the only available land-use data, based on aerial photographs taken during 1979, the gross cultivated area was 2,968,017 hectares (Kenting Earth Sciences 1986b; Appendix Table 3). Of this total, 2,645,886 hectares or 89.1 percent was recorded as net cultivated area (Kenting Earth Sciences 1986a; Table 5). Thus the net cultivated area constituted 17.9 percent of Nepal's total land area. The lowlands, including the Inner Tarai and the Tarai, with 29.5 percent of the total area, had 56.4 percent of the total net cultivated land. The share of the Tarai alone came to 47.3 percent (Table 5). The Mountain zone, covering 33.5 percent of the country's total area, had only 7.3 percent of the total net cultivated area. Among individual regions, the Eastern Tarai had 30.7 percent and the Central Mountain region only 0.4 percent of the total net cultivated area.

Table 5. Population density on net cultivated land by geographic region: 1981

	1981 population[a] (%)	Net cultivated land[b] (hectares)	Percentage of total area	Percentage of regional area	Persons per hectare
Nepal	100.0	2,645,886	100.0	17.9	5.7
Mountain	7.1	193,658	7.3	3.9	5.5
West	3.5	93,611	3.5	3.2	5.7
Central	0.3	10,107	0.4	1.4	4.9
East	3.3	89,880	3.4	7.1	5.4
Hill	44.2	958,213	36.1	17.5	6.9
West	9.9	255,494	9.6	14.2	5.8
Central	17.3	356,479	13.5	16.6	7.3
Kathmandu Valley	5.1	35,390	1.3	38.3	21.7
East	12.0	310,850	11.7	22.0	5.8
Inner Tarai	8.5	241,435	9.1	16.6	5.3
West	2.9	96,031	3.6	17.6	4.5
Central	3.3	80,304	3.0	17.5	6.3
East	2.3	65,100	2.5	14.4	5.3
Tarai	40.1	1,252,580	47.3	43.3	4.8
West	5.5	210,383	7.9	22.7	4.0
Central	6.4	228,615	8.6	44.1	4.2
East	28.2	813,582	30.7	56.2	5.2

a. Nepal, CBS (1984).

b. Kenting Earth Sciences (1986a: app. 6).

The country had an average of 5.7 persons per net cultivated hectare (Table 5). The Tarai had a density of 4.8 persons and the Inner Tarai 5.3 persons per net cultivated hectare. The Hill zone had the highest (6.9) and the Mountain region the next highest (5.5) density of persons per net cultivated hectare. Kathmandu Valley had an extremely high density of 21.7 persons per net cultivated hectare. Other geographic regions exceeding the national average in agricultural density were the Central Hill and Central Inner Tarai. The Western Tarai had the lowest density of population on net cultivated land. At the macro-regional level, the lowlands with 56.4 percent of the total net cultivated land had 4.9 persons per hectare as against 6.7 persons per hectare in the highlands.

EMIGRATION

Nepal has been a population-exporting country since the beginning of the nineteenth century. Population increase in the Hill, the traditional zone of settlement, forced people to move to other areas within the country or to seek their livelihood abroad. One of the principal avenues for out-migration was recruitment in the British Indian army, and the men were drawn mostly from tribes in the central and eastern hills. Although the bulk of this mercenary labor force returned home after the minimum service of 15 years, many were encouraged to settle in India, thus creating Gurkha colonies around cantonment areas.

There were also significant waves of Nepalese migrating to new frontier lands of the eastern Himalaya and even as far as northern Burma since the second half of the nineteenth century. Availability of land for pioneer farming and demand for labor in tea and timber were the main reasons for this eastward migration. By the close of the nineteenth century, more than half the population of Darjeeling district were migrants from Nepal (Varma 1972–73). Their influx into neighboring Sikkim after 1882 was even more pronounced: Nepalese settlers in Sikkim increased fivefold during the period 1891–1931 and now constitute more than 80 percent of the total population. Even in Bhutan, with a conservative immigration policy, nearly a third of the country's total population is estimated to be of Nepalese origin.

Volume and Source

The census data on absentee population living abroad indicate an increasing volume of out-migration from the country. The 1941 census reported 81,817 persons away from home for six months or more (Kansakar 1974:152). The absentees then constituted 1.3 percent of the enumerated population. Of the total absentee population, 86.0 percent were from the Central Mountain/Hill zones and 11.3 percent from the Eastern Mountain/Hill, both traditional source areas for Gurkha recruitment. No absentees were reported from the Western Mountain/Hill zone, the Eastern and Western Inner Tarai, and the Central and Western Tarai.

The 1952/54 census reported 198,120 persons absent outside the country. This number constituted 2.3 percent of the total population (Table 6). The Mountain/Hill zone contributed 97.2 percent of those abroad. The Central Mountain/Hill zone alone contributed 48.5 percent of the total. The absentee population from the Inner Tarai and the Tarai was only 1.9 and 0.9 percent respectively. Compared to 1941, absentees abroad increased by 2.4 times. The increase of absentees abroad from the Eastern Mountain/Hill zone was 5.4 times. The Western Mountain/Hill, Western and Eastern Inner Tarai, and Central and Western Tarai regions, which had not reported absentees abroad in 1941, recorded a total of 46,315 such absentees in 1952/54.

In the 1961 census, the number of those away from home for six months or more was 386,824 persons or 4.1 percent of the total population. Of this, number 328,470 persons or 82.2 percent of the total absentees were outside the country (Table 6). Thus the absentee population increased by 211.5 percent within and 65.8 percent outside the country during 1952/54–1961. The Mountain and Hill zones, particularly the Central Mountain/Hill, were the main source of absentees abroad. There was also a considerable increase in the absentee population abroad from the Tarai and Inner Tarai regions. The 1971 census did not include data on absentee population.

The 1981 census provides the latest data on absentee population outside Nepal. The total number of persons reported outside the country was 402,977 or 2.7 percent of the enumerated population (Table 6). The Mountain and Hill zones contributed nearly 90 percent of absentees abroad; the share of the Central Mountain/Hill alone was half the total; another fifth was from the Western Mountain/Hill. The share of the Tarai was 7.3 percent and that of the Inner Tarai 3.4 percent of the total absentees abroad. The six districts with the highest percentage (exceeding 9 percent) of absentees abroad were all from the Hill zone, five of these as a compact block in the Central Hills (Map 1). Of the 15 districts with 4 to 9 percent absentees out of the district's total population, 11 were Hill and four Mountain districts. None of the Tarai and Inner Tarai districts recorded more than 2 percent of their total population as absentees abroad. All 11 districts of the Eastern Tarai had less than 1 percent of their population as absentees abroad. This category also included four Mountain and four Hill districts including the three in Kathmandu Valley.

In 1952/54, the total volume of absentees (both within and outside the country) recorded was 216,853; of these 198,120 or 91.4 percent were absent abroad. In 1981, a total of 590,772 absentees was recorded; of these, 402,977 or 68.2 percent were outside the country (Nepal, CBS, 1984: vol. IV, table 3). Thus, during the last three decades, the volume of all absentees increased by 172.4 percent within Nepal and by 103.4 percent outside the country. The increase in absentee population abroad was 1.9 times for the Mountain and Hill zones, 3.5 times for the Inner Tarai, and 16.1 times

Table 4. Population growth of prominent localities and urban localities: 1952/54–1981

Urban localities	Population 1952/54	Percentage of total	Population 1981	Percentage of total	Absolute change	Percentage change	Annual growth rate (%)
Hill	11,017	4.5	83,376	8.7	72,359	658.8	7.5
Ilam[a] (East)	920	0.4	9,773	1.0	8,853	962.3	8.5
Dhankuta[a] (East)	2,097	0.9	13,836	1.4	11,739	559.8	6.7
Pokhara (Central)	3,295b	1.4	46,642	4.9	43,347	1,315.0	10.3
Tansen[a] (Central)	4,705	1.9	13,125	1.4	8,420	179.0	3.9
Kathmandu Valley	181,082	74.3	363,507	38.0	182,425	100.7	2.6
Kathmandu[c]	106,579	43.8	235,160	24.6	128,581	120.6	3.0
Lalitpur[c]	42,183	17.2	79,875	8.3	37,692	89.4	2.4
Bhaktapur[c]	32,320	13.3	48,472	5.1	16,152	50.0	1.5
Inner Tarai	1,139	0.5	96,861	10.1	95,722	8,404.0	17.9
Hetauda[a] (Central)	189	0.1	34,792	3.6	34,603	18,308.5	21.3
Bharatpur[a] (Central)	91	0.0	27,602	2.9	27,511	30,231.9	23.6
Tribhuvannagar[a] (West)	859	0.4	20,608	2.2	19,749	2,299.1	12.5
Birendranagar[d] (West)			13,859	1.4			

Tarai	50,345	20.7	412,977	43.2	362,632	720.3	7.8
Bhadrapur[a] (East)	1,478	0.6	9,761	1.0	8,283	560.4	6.7
Biratnagar[c] (East)	8,060	3.3	93,544	9.8	85,484	1,060.6	8.8
Dharan[a] (East)	4,486	1.8	42,146	4.4	37,660	839.5	8.0
Rajbiraj[a] (East)	2,376	1.0	16,444	1.7	14,068	592.1	6.9
Lahan[a] (East)	1,777	0.7	13,775	1.4	11,998	675.2	7.3
Janakpur[c] (East)	7,037	2.9	34,840	3.6	27,803	395.1	6.1
Birganj[c] (East)	10,037	4.1	43,642	4.6	33,605	334.8	5.2
Siddarthanagar[a] (Central)	1,154	0.5	31,119	3.3	29,965	2,596.0	13.0
Butwal-Khasyauli[a] (Central)	2,597	1.1	22,583	2.4	19,986	769.6	8.3
Nepalganj[c] (West)	10,813	4.4	34,015	3.6	23,202	214.6	4.3
Dhangarhi[a] (West)	530	0.2	27,274	2.9	26,774	5,046.0	15.7
Mahendranagar[d] (West)			43,834	4.6			
Total	243,583	100.0	956,721	100.0	713,138	292.8	5.0

Source: Nepal, DOS (1957: app. I and II, pp. 1-10); Nepal, CBS (1984: vol. III, table 1).

a. Designated only as prominent place but not as urban locality in 1952/54 census.

b. Records of Nepal Malaria Eradication Organization.

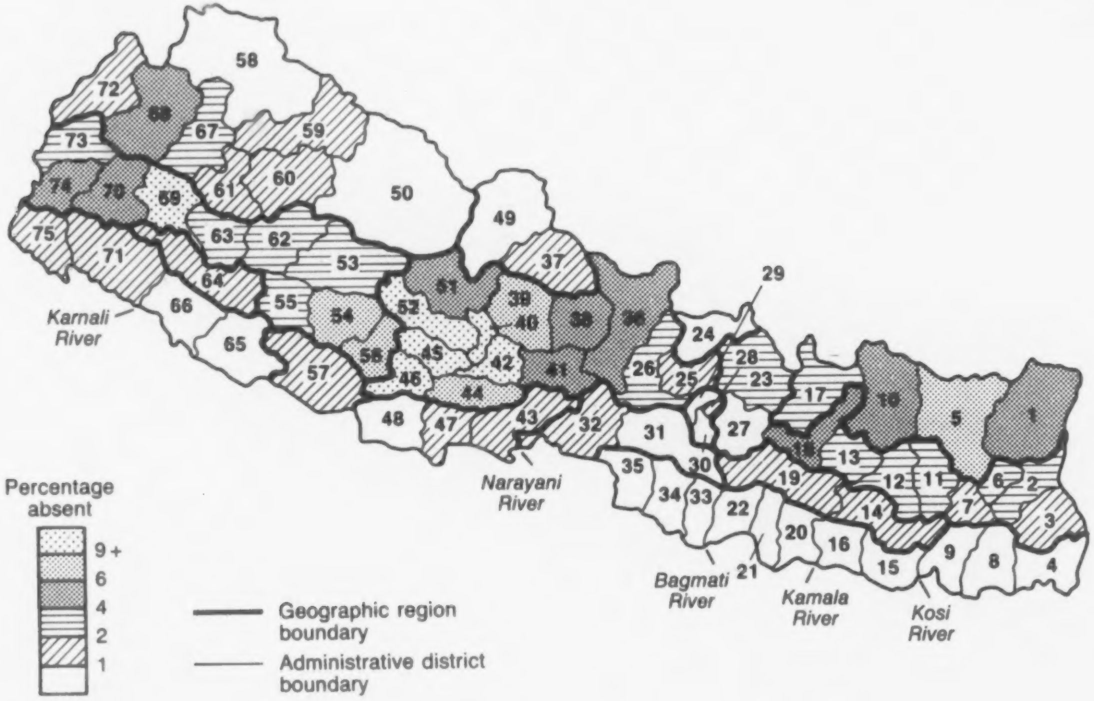
c. Designated urban locality in 1952/54 census.

d. New settlement.

Table 6. Number and change in absentees abroad: 1952/54–1981

Region	1952/54		1961		1981		Change 1952/54–1981	
	Number	%	Number	%	Number	%	Number	%
Mountain/Hill	192,424	97.2	312,346	95.1	359,925	89.3	167,097	86.7
West	43,968	22.2	74,164	22.6	82,837	20.6	39,112	89.4
Central	95,992	48.5	150,502	45.8	202,598	50.3	105,959	109.6
Kathmandu Valley	2,911	1.5	7,089	2.2	4,449	1.1	1,538	52.8
East	49,553	25.0	80,591	24.5	70,041	17.4	20,488	41.3
Inner Tarai	3,856	1.9	6,603	2.0	13,510	3.4	10,038	289.1
West	216	0.1	519	0.2	6,354	1.6	6,138	2,841.7
Central	1,712	0.9	2,743	0.8	4,029	1.0	2,711	205.7
East	1,928	1.0	3,341	1.0	3,127	0.8	1,189	61.4
Tarai	1,840	0.9	9,521	2.9	29,542	7.3	27,712	1,514.3
West	123	0.1	444	0.1	6,262	1.6	6,139	4,991.0
Central	173	0.1	1,922	0.6	9,217	2.3	9,054	5,554.6
East	1,544	0.8	7,155	2.2	14,063	3.5	12,519	810.8
Total absentees	198,120	100.0	328,470	100.0	402,977	100.0	204,857	103.4
Absentees abroad as % of total population		2.3		3.5		2.7		

Sources: Nepal, DOS (1957: pt. I, sec. 3, tables 1 and 2); Nepal, CBS, (1967: vol. I, table 13); Nepal, CBS (1984: vol. IV, table 2).
Note: Census regions have been made comparable to those of 1952/54.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for the Tarai (Table 6). Absentees from the Central Mountain and Hill regions more than doubled. Absentees outside the country increased by 103.4 percent during the three decades (1952/54–1981). As in earlier decades, an overwhelming majority of these absentees were from the Mountain and Hill regions. The Central Mountain and Hill regions had the highest absolute increase; the Central Tarai had the highest percentage increase of absentees during 1952/54–1981.

Destination

Of the total 198,120 absentees abroad reported in 1952/54, some 79.4 percent were in India, 4.3 percent in other Asian countries, 0.2 percent in China, and 16 percent in other countries and unstated (Table 7). Among the countries in Asia, Malaya (later Malaysia) had 3.3 percent, Burma 0.9 percent, and Pakistan 0.1 percent. Those in Malaya were soldiers and their dependents in the British Gurkhas. While the 1952/54 Nepal census reported 157,323 absentees in India, the Indian census of 1951 reported 278,972 persons as Nepal-born and 82,071 persons as Nepalese nationals residing in India (Table 8). The discrepancy may be attributed to the nonreporting of long-term and whole-family emigrants in the Nepalese census. Nearly 90 percent of the Nepal-born population in India was in the neighboring states of Uttar Pradesh, Bihar, West Bengal, and Assam (Table 8). States (Bombay) and union territories (Delhi) with large cities also recorded a sizable number of Nepal-born. More than 60 percent of the Nepal-born population in India was male. Bihar was the only state with a female preponderance among the Nepal-born.

According to the 1961 census, the 328,470 absentees abroad were distributed as follows: 92 percent in India, 4.8 percent in other Asian countries, 0.2 percent in China, and 2.9 percent in other countries and unstated (Table 7). Those reported in Malaya and Burma increased substantially while those in the other countries and unstated category declined sharply. Thus the number of Nepalese absentees in India increased by 144,829 persons, or 93.1 percent, during 1952/54–1961.

The 1961 census of India, on the other hand, recorded 498,836 Nepal-born and 133,524 Nepalese nationals residing in India (India, ORGCC, 1964:8). The two-thirds undercount in the Nepal census may be attributed to the underreporting of long-term emigrants. The Indian census reported an increase of 78.8 percent in Nepal-born and 62.7 percent in Nepalese nationals during 1951–61. The neighboring states of Uttar Pradesh, Bihar, West Bengal, and Assam claimed 82.7 percent of the Nepal-born population (Table 8). Although males predominated by 56.3 percent, Bihar adjoining the Eastern Tarai had 77.1 percent females among the Nepal-born, indicating considerable marriage migration across the border. According to one estimate: "Approximately 82,000 Nepalis migrated annually to India as of the 1961 census (Indian), and each year approximately 62,000 migrants returned

Table 8. Nepal-born population in India: 1951, 1961, and 1971

				Change 1951–71	
State/territory	1951	1961	1971	Number	%
Uttar Pradesh	83,900	111,718	83,459	–441	0.5
Male	49,234	63,661	41,236		
Female	34,666	48,057	42,223		
West Bengal	73,299	109,190	100,365	27,066	36.9
Male	45,861	68,501	61,460		
Female	27,438	40,689	38,905		
Assam/Meghalaya/Arunanchal	56,572	82,624	107,216	50,644	89.5
Male	36,350	53,189	66,831		
Female	20,222	29,435	40,385		
Bihar	34,942	108,971	122,528	87,586	25.0
Male	12,257	24,925	18,132		
Female	22,685	84,046	104,396		
Himachal Pradesh	1,854	9,699	19,718	17,324	93.4
Male	1,661	8,845	16,069		
Female	193	854	3,649		
Bombay/Maharastra	9,183	13,704	18,422	9,239	100.0
Male	8,165	11,812	14,107		
Female	1,018	1,892	4,315		
Delhi	1,073	5,892	9,670	8,593	80.0
Male	934	4,544	7,361		
Female	129	1,348	2,309		
Other	18,149	57,038	65,148	46,999	25.8
Male	14,693	45,126	48,547		
Female	3,456	11,912	16,601		
Total	278,972	498,836	526,526	147,554	88.7
Male	169,155	280,603	273,743	104,588	61.8
Female	109,817	218,233	252,783	142,966	13.0

Source: India, ORGCC (1954, 1964, 1976: pt. IID(i), migration tables).

after having lived in India from one to five years. Of the 20,000 who remained, half were males and half were females and at least half of these females [went] to India to marry Indian citizens" (Weiner 1973:621).

The Nepal census of 1971 did not report on the absentee population inside or outside the country. According to the 1971 census of India, there were 486,000 Nepal-born persons residing in India, (India, ORGCC, 1976:8). Thus there was only an increase of 5.6 percent of Nepal-born in India during 1961–71 as compared to the 62.7 percent increase in the preceding decade.

The 1981 census reported that of the total absentees abroad, 375,196 or 93.1 percent were in India. The rest were distributed as 2.2 percent in other Asian countries, 0.1 percent in China, and 4.6 percent in other countries and unstated. The 1981 census of India (based on a 5 percent sample) estimated 501,292 persons as Nepal-born and 444,427 persons with their last place of residence in Nepal (India, ORGCC, 1984:218, 226–27). The estimate indicates a decline of 4.8 percent in the Nepal-born in India in the last decade. The Nepal-born are estimated to be 54 percent female, and 70.4 percent of all Nepal-born are said to be residing in rural areas. Migration to other countries in the region was not significant. Migration to the Tibetan region of China ceased after the political change there in 1959, and migration to Burma was virtually stopped by the Burmese Nationalization Act of 1964.

Characteristics and Reasons

Most of the migrants reported abroad in 1981 were young males. Indeed, more than 80 percent of them were male (Table 9). All age groups had a high percentage of males—nearly 90 percent in the 45–64 age group. Only the dependent age group of those below 14 years had a sizable female population. On average, there were 440 males to 100 females among absentees abroad. Nearly 60 percent were within the age group 15–34 years. Another 15.9 percent were in the age group 35–44 years. Children below 15 years constituted 15.5 percent and those over 55 years only 3 percent. Among males, the largest age group was that of 25–34 years. A third of the females were below 15 years of age.

Military and other service was the reason for living abroad given by two-thirds of the absentees. A large percentage fell under the "Other" category (Table 10). Among the other reasons listed, agriculture claimed 3.5 percent and education (study or training) 2.6 percent. Those reporting marital relation as the reason for being abroad constituted only 0.9 percent. Such a low percentage, masking the true extent of marriage migration across the Indo-Nepal border, might be due to discounting married-away females as household members. Trade was rarely given as the reason for absence abroad (Figure 2).

Those migrating outside the country for service were 96.7 percent male, and two-thirds of them were in the 15–34 age group. Another 19 percent of those reported abroad for military service were between 35 and 44 years of age. Absentees in service abroad were 83.5 percent from the Hill zone (Table 10). More than half were from the Central Hill region alone, the main recruiting area for military and paramilitary services. There were fewer abroad for service from Kathmandu Valley. Service was the principal reason for being abroad in all regions (Map 2), however, ranging from 78 percent in the Western Inner Tarai to 34 percent in the Eastern Mountain region.

Of those absent abroad for agricultural reasons, 83.1 percent were male and 51 percent were in the 15–34 age group (Table 9). They originated mainly

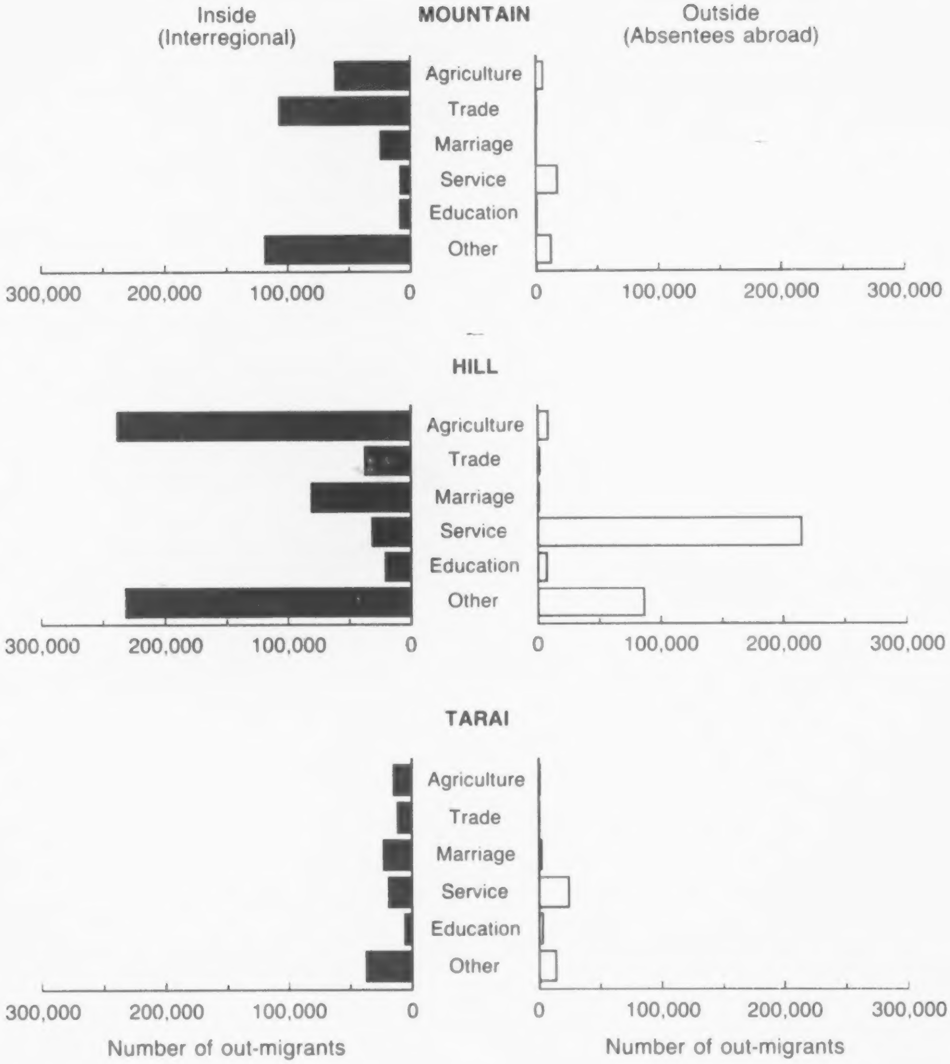


Figure 2. Reasons for migration inside and outside the country, by region of origin: 1981

Source: Tables 10 and 24.

in the Mountain and Hill regions. Nearly 80 percent of those migrating abroad for agriculture were from the Eastern Mountain and Hill regions. Agriculture was the least important reason for out-migration abroad from Kathmandu Valley and the Western Inner Tarai. About two-thirds of those absent abroad for education were from the Hill zone; another 20.5 percent were from the Tarai. Half of those living abroad for education were children below 15 years, and 36 percent were in the 15–24 age group. There was a preponderance of males (79.5 percent) and it increased with age. For Kathmandu Valley, education was the second most important reason for migration abroad after agriculture.

Ninety percent of those living outside the country for marriage reasons were female (Table 9). Nearly 80 percent of these were within the 15–34 age group. Of all those migrating abroad for marriage reasons, nearly 60 percent were from the Tarai and a third were from the Hill zone. The Eastern Tarai alone had 55.3 percent of the total absentees abroad due to marriage. Among those absent abroad for trade, 85.7 percent were male and about 59 percent were in the 15–34 age group. Two-thirds of them came from the Hills and a quarter from the Mountains. Thus Nepalese migrants abroad were mostly in service requiring youthful males. Out-migration for service abroad was the principal reason in all regions and particularly in the Hill and Inner Tarai regions. The second reason of importance varied from agriculture for the Mountain and Hill regions to education for Kathmandu Valley and the Tarai. The Tarai was also noted for marriage migration abroad.

Survey Data

The Demographic Sample Survey 1986–87 of 8,640 households, based on a multistage national probability sample of 129 identifiable clusters from 35 districts, provides the latest data on emigration (Nepal, CBS, 1988). The emigration rate per 1,000 population for the country was 12, with 20 for male and 4 for female. Regional variations ranged from 6 for the Tarai to 13 for the Hill and 33 for the Mountain zones (Nepal, CBS, 1988: table C.1). The emigration rate was lowest among females in the Hill zone (1.52) and highest among males in the Mountain zone (56.01). Of the 566 sample emigrants, 96 percent had moved to India.

Emigrants from rural areas were mostly in the age group 10–19 years: 60.3 percent for female and 40.7 percent for male. Those emigrating from urban areas were mostly in the age group 20–29 years. Thus emigrants are disproportionately selected in the adolescent and young adult age groups. The main reason for emigration was military service: 55.9 percent of the survey sample compared to 64 percent for the 1981 census (Table 9). Seeking a job and education were also important, each accounting for over 10 percent of the sample emigrants. Marital reasons for emigration were recorded only among females (all to India). Comparison of past occupation at origin and present occupation at destination shows a major shift from

1	Taplejung	16	Siraha	31	Makwanpur	46	Argha Khanchi	61	Kalikot
2	Panchthar	17	Dolakha	32	Chitawan	47	Rupandehi	62	Jajarkot
3	Ilam	18	Ramechhap	33	Rautahat	48	Kapilvastu	63	Dailekh
4	Jhapa	19	Sindhuli	34	Bara	49	Mustang	64	Surkhet
5	Sankhuwa Sabha	20	Dhanusa	35	Parsa	50	Dolpo	65	Banke
6	Terhathum	21	Mahotari	36	Gorkha	51	Myagdi	66	Bardiya
7	Dhankuta	22	Sarlahi	37	Manang	52	Baglung	67	Bajura
8	Morang	23	Sindhu-palchok	38	Lamjung	53	Rukum	68	Bajhang
9	Sunsari	24	Rasuwa	39	Kaski	54	Rolpa	69	Achham
10	Solu-Khumbu	25	Nuwakot	40	Parbat	55	Salyan	70	Doti
11	Bhojpur	26	Dhading	41	Tanahun	56	Pyuthan	71	Kailali
12	Khotang	27	Kabhre-palanchok	42	Syangja	57	Dang-Deokhuri	72	Darchula
13	Okhaldhunga	28	Bhaktapur	43	Nawal Parasi	58	Humla	73	Baitadi
14	Udayapur	29	Kathmandu	44	Palpa	59	Mugu	74	Dadeldhura
15	Saptari	30	Lalitpur	45	Gulmi	60	Jumla	75	Kanchanpur

Map 1. Absentees abroad as a percentage of district population: 1981

Source: Nepal, CBS (1984: vol. I, table 1; vol. IV, table 2).

Note: See Table 6 for percentage of absentees by geographic region.

Table 7. Change in number of absentees abroad by destination: 1952/54–1981

Destination	1952/54		1961		1981		Change 1952/54–1981	
	Number	%	Number	%	Number	%	Number	%
India	157,323	79.4	302,162	92.0	375,196	93.1	217,873	138.5
China (Tibet)	422	0.2	809	0.2	265	0.1	–157	-37.2
Other Asia	8,616	4.3	15,923	4.8	9,054	2.2	438	5.1
Malaya (Malaysia)	6,621	3.3	12,798	3.9				
Burma	1,842	0.9	3,025	0.9				
Pakistan	153	0.1	100	0.0				
Other countries/unstated	31,759	16.0	9,576	2.9	18,462	4.6	–13,297	-41.9
Total	198,120	100.0	328,470	100.0	402,977	100.0	204,857	103.4

Source: Nepal, DOS (1957: pt. I, sec. 3, table 2); Nepal, CBS (1967: vol. I, table 11); Nepal, CBS (1984: vol. IV, table 2).

Table 9. Age and sex of absentees abroad by reason: 1981

	Service		Education		Agriculture		Marriage		Trade		Other		Total	
Age and sex	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Over 65 years	1,339	0.5	8	0.1	250	1.8	3	0.1	36	1.4	731	0.6	2,367	0.6
Male	1,281	0.5	4	0.0	200	1.4	1	0.0	34	1.3	381	0.3	1,901	0.5
Female	58	0.0	4	0.0	50	0.4	2	0.0	2	0.1	350	0.3	466	0.1
55–64 years	7,280	2.8	23	0.2	597	4.2	20	0.6	98	3.9	1,528	1.3	9,546	2.4
Male	7,133	2.8	18	0.2	509	3.6	7	0.2	85	3.4	780	0.7	8,532	2.1
Female	147	0.0	5	0.0	88	0.6	13	0.4	13	0.5	748	0.7	1,014	0.3
45–54 years	21,771	8.4	63	0.6	1,613	11.4	128	3.6	295	11.7	4,224	3.7	28,094	7.0
Male	21,319	8.3	53	0.5	1,362	9.7	23	0.6	261	10.3	2,089	1.8	25,107	6.2
Female	452	0.1	10	0.1	251	1.7	105	2.9	34	1.4	2,135	1.9	2,987	0.7
35–44 years	48,926	19.0	272	2.6	3,023	21.4	412	11.5	495	19.6	11,022	9.6	64,150	15.9
Male	47,731	18.5	241	2.3	2,596	18.4	48	1.3	430	17.0	5,082	4.4	56,128	13.9
Female	1,195	0.5	31	0.3	427	3.0	364	10.1	65	2.6	5,940	5.2	8,022	2.0
25–34 years	88,525	34.3	1,107	10.4	4,731	33.5	1,265	35.2	825	32.7	24,230	21.2	120,683	29.9
Male	85,794	33.3	994	9.3	3,985	28.3	113	3.1	723	28.7	10,439	9.1	102,048	25.3
Female	2,731	1.1	113	1.1	740	5.2	1,152	32.0	102	4.0	13,791	12.2	18,635	4.6
15–24 years	81,720	31.7	3,828	36.0	3,198	22.7	1,609	44.7	634	25.1	24,797	21.7	115,786	28.7
Male	78,941	30.6	3,267	30.7	2,619	18.6	122	3.4	527	20.9	12,016	10.5	97,492	24.2
Female	2,779	1.1	561	5.3	579	4.1	1,487	41.4	107	4.2	12,781	11.2	18,294	4.5
Below 15 years	8,203	3.2	5,339	50.2	693	4.9	159	4.4	140	5.5	47,817	41.8	62,351	15.5
Male	6,948	2.7	3,883	36.5	451	3.2	44	1.2	101	4.0	25,813	22.6	37,240	9.2
Female	1,255	0.5	1,450	13.6	242	1.7	115	3.2	39	1.5	22,004	19.2	25,111	6.2
Total	257,764	100.0	10,640	100.0	14,105	100.0	3,596	100.0	2,523	100.0	114,349	100.0	402,977	100.0
Male	249,147	96.7	8,460	79.5	11,722	83.1	358	10.0	1,161	85.7	56,600	49.5	328,448	81.5
Female	8,617	3.3	2,180	20.5	2,383	16.9	3,290	90.0	362	14.3	57,749	50.5	74,529	18.5

Source: Nepal, CBS (1984: vol. IV, table 2).

Note: Percentages show proportion for each age/sex group of total persons abroad for indicated reason.

Table 10. Reasons for absentees abroad by geographic region: 1981

Region	Service		Agriculture		Education		Marriage		Trade		Other/ unstated		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mountain	17,309	6.7	5,432	38.5	685	6.4	160	4.4	637	25.2	12,091	10.6	36,314	9.0
West	9,032	3.5	79	0.6	85	0.8	20	0.6	134	5.3	2,735	2.4	12,085	3.0
Central	166	*	2	*	17	0.2	0	*	66	2.6	89	0.1	340	0.1
East	8,111	3.1	5,351	37.9	583	5.5	140	3.9	437	17.3	9,267	8.1	23,889	5.9
Hill	215,165	83.5	7,883	55.9	6,447	60.6	1,211	33.7	1,507	59.7	86,949	76.0	319,162	79.2
West	50,480	19.6	1,024	7.3	1,564	14.7	168	4.7	113	4.5	17,403	15.2	70,752	17.6
Central	142,723	55.4	1,116	7.9	3,987	37.5	790	22.0	777	30.8	52,865	46.2	202,258	50.2
East	21,962	8.5	5,743	40.7	896	8.4	253	7.0	617	24.5	16,681	14.6	46,152	11.5
Kathmandu Valley	1,559	0.6	27	0.2	969	9.1	39	1.1	70	2.8	1,785	1.6	4,449	1.1
Inner Tarai	9,582	3.7	140	1.0	353	3.3	41	1.1	58	2.3	3,336	2.9	13,510	3.4
West	4,955	1.9	16	0.1	89	0.8	20	0.6	26	1.0	1,248	1.1	6,354	1.6
Central	2,770	1.1	41	0.3	213	2.0	16	0.4	10	0.4	979	0.9	4,029	1.0
East	1,857	0.7	83	0.6	51	0.5	5	0.1	22	0.9	1,109	1.0	3,127	0.8
Tarai	14,149	5.5	623	4.4	2,186	20.5	2,145	59.6	251	9.9	10,188	8.9	29,542	7.3
West	4,158	1.6	37	0.3	183	1.7	20	0.6	16	0.6	1,848	1.6	6,262	1.6
Central	5,494	2.1	126	0.9	408	3.8	135	3.8	59	2.3	2,995	2.6	9,217	2.3
East	4,497	1.7	460	3.3	1,595	15.0	1,990	55.3	176	7.0	5,345	4.7	14,063	3.5
Total	257,764	100.0	14,105	100.0	10,640	100.0	3,596	100.0	2,523	100.0	114,349	100.0	402,977	100.0
Percentage of total abroad by reason		64.0		3.5		2.6		0.9		0.6		28.4		100.0

Source: Same as Table 9. See also Map 2 and Figure 4.

* Less than 0.05 percent.

agriculture to nonagricultural occupations. Of the emigrants from rural areas with 55.7 percent in agriculture, 76.4 percent reported they were employed in other occupations.

IMMIGRATION

While a sizeable number migrate out of the country, particularly from the hills, Nepal has also been a passage and destination for immigrants. Since the second half of the nineteenth century, there had been a deliberate policy of settling yeoman farmers from India in the virgin lands of the Tarai (Regmi 1971). The influx of Tibetan refugees in 1959–60 and Bihari Muslims from Bangladesh in 1971–72, however, represents immigration into Nepal due to political turmoil. Nepal has, therefore, experienced increasing immigration both peaceful and political in recent decades. The nature and magnitude of immigration into Nepal from its two neighbors, India and China, present a contrast. Migratory movements of people across the Nepal–China (Tibet) border have been of limited exent due to physical and political barriers and has virtually ceased since 1959. There is an extensive movement of population between Nepal and India, however, facilitated by an open border extending more than 3,000 kilometers as well as close economic and cultural ties. Increasing development in the Tarai regions contiguous to India has further encouraged immigration across the southern border. Information on immigration is derived from census data on the foreign-born population and foreign citizens.

Foreign-Born

Data relating to the foreign-born population were first recorded in the Nepal census of 1961. Not all foreign-born persons are aliens, however. Nepal has always had a sizable absentee population outside the country and some of those reported as foreign-born in the hills, the home of the Gurkhas, were the offspring of men in the foreign armies and other services. For example, part of the India-born population in the hills and all of the Malaya-born were the children of Nepalese in mercenary service in those countries. Those recorded as Burma-born, however, represent return migrants of Nepalese origin after the implementation of the Burmese Nationalization Act of 1964.

The census of 1961 recorded 337,620 persons or 3.6 percent of the total population as foreign-born (Table 11). Of the foreign-born, 96 percent were born in India. Among the 324,159 India-born, 308,516 or 95.2 percent were reported in the Tarai, 4.2 percent in the Mountain and Hill regions, and 0.7 percent in the Inner Tarai. Other foreign-born were 8,061 from China (Tibet), 2,302 from Pakistan, 1,531 from Malaysia (then Malaya), and 1,052 from Burma. The regional distribution of all foreign-born was 92.3 percent in the Tarai, 6.9 percent in the Mountain and Hill zones, and 0.7 percent in the Inner Tarai. More than 95 percent of the India-born were in the Tarai, and 96.2 percent of the China-born or Tibet-born were in the Mountain and Hill regions, indicating immigration to regions adjacent to the country of origin.

The 1971 census recorded 337,448 foreign-born persons in Nepal, a marginal decline of 172 persons from the previous census (Table 11). As in the 1961 census, more than 90 percent of the foreign-born were concentrated in the Tarai. Their number decreased slightly in the Mountain and Hill regions and the Tarai but increased in the Inner Tarai. The India-born population constituted 95.6 percent of the total foreign-born, an increase of 2.6 percent since 1961. Those born in China declined sharply due to stepwise migration of Tibetan refugees to India. More than 90 percent of the India-born were concentrated in the Tarai, two-thirds in the Eastern Tarai alone. Those born in other Asian countries increased threefold during 1961–71. The sex ratio (males per 100 females) of the foreign-born was 57.7. The sex ratio of the India-born was 55.8.

The 1981 census reported 14,788,800 as native-born, 234,039 as foreign-born, and 4,554 as birthplace not stated (Table 12). Thus the number of foreign-born in 1981 declined by 30.6 percent compared to 1971. Moreover, the proportion of foreign-born to total population decreased progressively: 3.6 percent in 1961, 2.9 percent in 1971, and 1.6 percent in 1981. Of the total foreign-born, the share by country of birth was 95 percent India, 3.3 percent other Asia, 1.1 percent China, and 0.6 percent others and unstated (Table 11). As in the two previous censuses, more than 90 percent of the foreign-born were concentrated in the Tarai. The share of the Mountain and Hill regions was 5.5 percent; that of the Inner Tarai was 2.4 percent. The

Table 12. Population by country of birth and citizenship: 1961–81

				Change 1961–81	
Item	1961	1971	1981	Number	%
Native (Nepal) born	9,075,376	11,218,535	14,788,800	5,713,424	63.0
% of total population	96.4	97.1	98.4		
Nepalese citizen	9,302,935	11,419,506	14,539,820	5,236,885	56.3
% of total population	98.8	98.8	96.8		
Ratio of Nepalese citizen to native (Nepal) born	1:0.97	1:0.98	1:1.01		
Foreign-born	337,620	337,448	234,039	-103,581	-30.7
% of total population	3.6	2.9	1.6		
Foreign citizen	110,061	136,477	483,019	732,958	666.0
% of total population	1.2	1.2	3.2		
Ratio of foreign citizen to foreign-born	1:3.10	1:2.47	1:0.48		

Source: Same as Table 11.

India-born population constituted 22 percent of the Mountain and Hill regions, 90.6 percent of the Inner Tarai, and 96.5 percent of the Tarai among the foreign-born. Those reporting as India-born declined by 31.4 percent whereas the decline for China-born was 69.2 percent during 1961–81. Observers have suggested three main reasons for this dramatic decline in foreign-born: misclassification by enumerators; willful distortion on the part of foreign-born citizens to avoid identifying themselves as foreigners; and the possibility that foreign-born persons with long residence in Nepal may no longer consider themselves to be foreigners (Nepal, CBS, 1985b:69).

The majority (56.6 percent) of those reporting as foreign-born had been living in Nepal more than 12 years (Nepal, CBS, 1984: vol. I, pt. II, table 8). Another 38.7 percent reported a one to 11 years' duration of stay in Nepal. There was no significant difference in the duration of stay by country of origin. The age breakdown of the foreign-born was 82.5 percent of 15 to 59 years of age, 8.9 percent under 15 years, and 8.6 percent 60 years and over. Of those in the 15–59 age group, 28.2 percent were male and 71.8 percent female. The overall sex ratio among the foreign-born was 44 males to 100 females (compared to 108 males to 100 females among the native-born and unstated). By broad age groups, the sex ratio was 98.2 for those under 15 years, 39.3 for 15–59 years, and 50.3 for those over 59 years.

Among the foreign-born, 43.3 percent indicated marital relations as the reason for migrating to Nepal (Nepal, CBS, 1984: vol. I, pt. II, table 9). Trade and commerce (10.1 percent) and agriculture (10 percent) were also significant reasons. Service and study or training were cited as reasons for migration into Nepal by 4.9 percent and 1.3 percent of the migrants, respectively. A sizable 25.8 percent cited other reasons or fell in the unstated category. (See Table 28 for reasons given by India-born reported in Nepal.)

Foreign Citizens

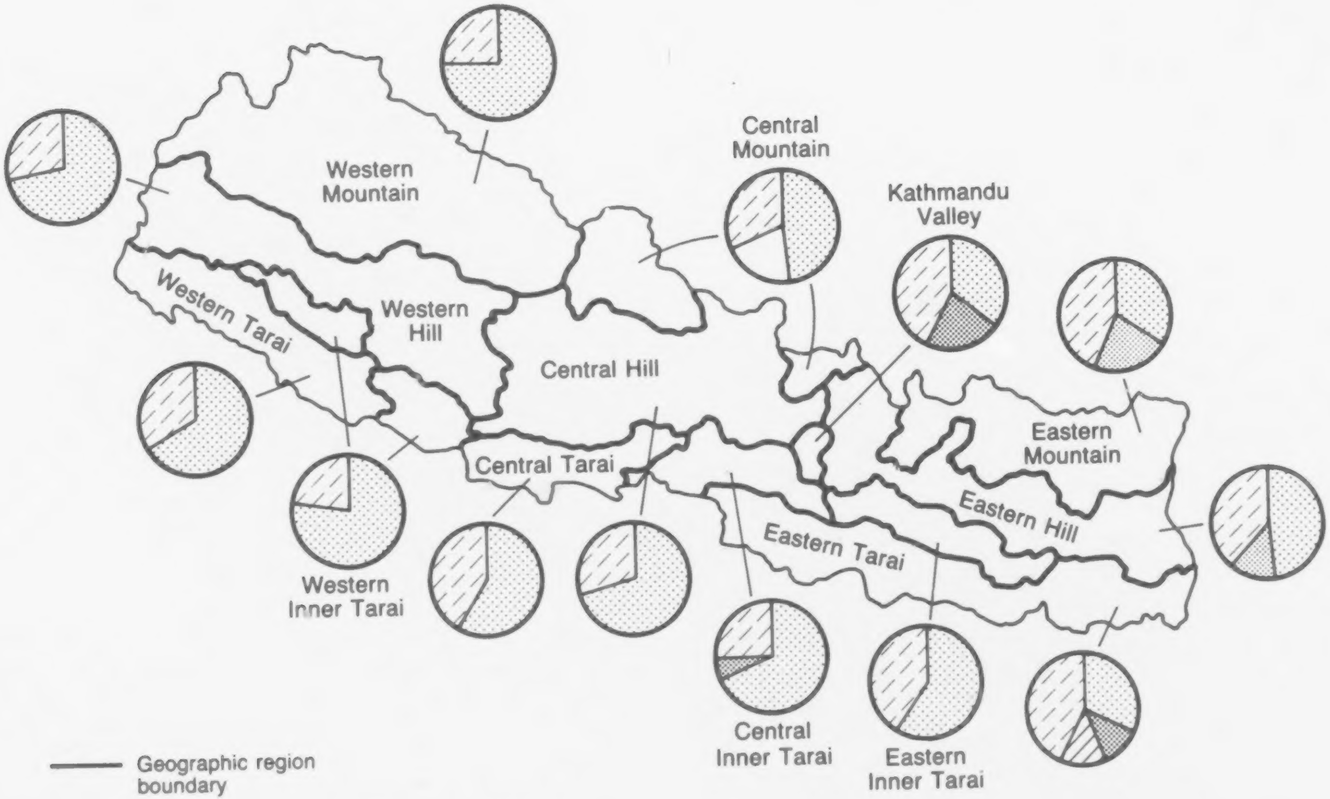
The censuses of 1961, 1971, and 1981 also reported the number of foreign citizens in the country. The 1961 census recorded 110,061 foreign citizens in Nepal—1.2 percent of the total population (Table 12). The number of foreign citizens was one-third of the foreign-born population. Thus the bulk of the foreign-born was made up of Nepalese born in foreign countries of parents who had migrated there. Apart from such return migrants, adoption of Nepalese citizenship by aliens also contributed to the size of the foreign-born population as compared to foreign citizens.

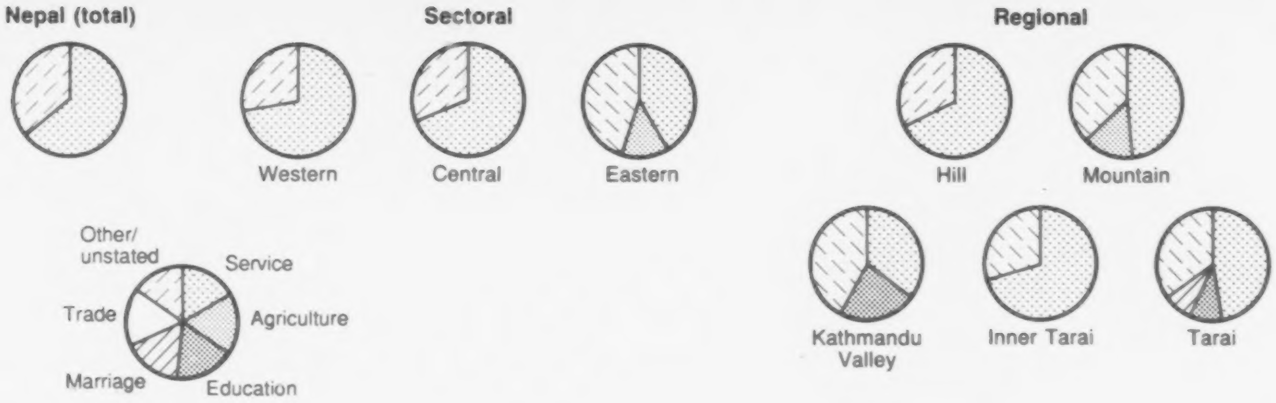
Of the total aliens reported in 1961, some 69.3 percent were Indian, 6.8 percent Chinese, 0.5 percent Pakistani, and 23.4 percent unstated (Table 13). Nearly 90 percent of the foreign citizens were in the Tarai (Nepal, CBS, 1967: vol. II, table 9). The Eastern Tarai alone claimed more than half of these. Of the 76,311 Indians in Nepal, 98 percent were concentrated in the Tarai region adjoining India. Most of the Chinese were similarly concentrated in Mountain and Hill regions bordering on Tibet. Thus most aliens in Nepal were living in regions contiguous to their country of origin.

The 1971 census recorded 136,477 foreign citizens (Table 13). In contrast to a slight decline in the foreign-born population during 1961–71, foreign citizens increased by 24 percent. The number of foreign citizens in 1971 was 40.4 percent of the foreign-born and 1.2 percent of the total population (Table 12). More than 90 percent of the foreign citizens were residing in the Tarai, mostly in the Eastern Tarai (Nepal, CBS, 1975: vol. II, pt. I, table 12). The Western Mountain and Hill regions had the least number of aliens. Foreign citizens increased in all regions except in the hills, from whence a sizable number of Chinese (Tibetans) migrated elsewhere. Indians constituted 94.4 percent of the total foreigners in the country in 1971 (Table 13). Their increase during 1961–71 was 68.8 percent. Since there was no unstated category in the 1971 census, it is conjectured that some of those enumerated as "unstated" in the 1961 census were Indian citizens. The number of Indians increased in all regions. Of the 128,829 Indian citizens in Nepal in 1971, more than 95 percent were in the Tarai. Within the Tarai itself, the Eastern Tarai had 64.3 percent and the Central Tarai 25 percent of the Indians.

The 1981 census reported 483,019 foreign citizens (Table 13). These were categorized as 24.2 percent Indian, 1.6 percent other Asian (Chinese), and 74.2 percent as others and unstated. Those in the others/unstated category increased from 25,777 in 1961 to 358,586 in 1981. Indians increased by 118.5 percent while the Chinese declined by 2.9 percent during the same period (1961–81). During the successive censuses of 1961, 1971, and 1981, the percentage of foreign-born to total population declined progressively while the percentage of foreign citizens increased from 1.2 percent in 1961 and 1971 to 3.2 percent in 1981 (Table 12).

As admitted by the Central Bureau of Statistics, the 1981 census figures on immigrants are suspect (Nepal, CBS, 1988:6). The first anomaly is in the respective numbers of foreign-born and foreign citizens in the 1981 census compared to those for 1961 and 1971 (Table 12). The earlier two censuses recorded more foreign-born population than foreign citizens by 3.1 times in 1961 and by 2.5 times in 1971. The 1981 census reported foreign citizens as 2.1 times the number of foreign-born. Another anomaly appears in the categorization of the population by citizenship. The age grouping of population categorized as Nepalese, Indian, Chinese, and others and unstated shows an excessively high proportion (23.5 percent) under 5 years of age for others/unstated (Nepal, CBS, 1984: vol. I, pt. III, table 11). The corresponding proportion of those under 5 years of age was 15.3 percent for Nepalese, 8.6 percent for Indians, and 12.1 percent for Chinese. As a general pattern, natives should have a larger number of child dependents than foreigners. The contrary evidence in the 1981 census indicates that the category of others/unstated includes a sizable number of Nepalese citizens. The wide numerical distribution of this category in all districts sup-


Western Mountain
Central Mountain
Kathmandu Valley
Western Tarai
Western Hill
Central Hill
Eastern Mountain
Central Tarai
Eastern Hill
Eastern Tarai
Western Inner Tarai
Central Inner Tarai
Eastern Inner Tarai
Geographic region boundary



Map 2. Reasons for absentees abroad by geographic region: 1981

Source: Nepal, CBS (1984: vol. IV, table 3).

Note: Reasons for absentees abroad that represent 5 percent or less of total reasons indicated within a region are subsumed into the "Other/unstated" category. See Table 10 for percentages of absentees for each reason. Circles are not proportionate to volume.

Table 11. Number and change in foreign-born population by region: 1961–81

	1961		1971		1981		Change 1961–81	
Region and country of birth	Number	%	Number	%	Number	%	Number	%
Mountain/Hill	23,594	100.0	22,580	100.0	17,941	100.0	–10,653	–45.2
India	13,498	57.2	15,851	70.2	9,320	72.0	–4,178	–31.0
China	8,050	34.1	1,500	6.6	1,984	15.3	–6,066	–75.4
Other Asia	1,903	8.1	4,624	20.5	1,228	9.5	–675	–35.5
Others/unstated	143	0.6	605	2.7	409	3.2	266	186.0
Inner Tarai	2,235	100.0	6,702	100.0	5,691	100.0	3,456	154.6
India	2,145	96.0	5,724	85.4	5,156	90.6	3,011	140.4
China	4	0.2	4	0.1	36	0.6	32	800.0
Other Asia	83	3.7	968	14.4	461	8.1	378	455.4
Others/unstated	3	0.1	6	0.1	38	0.7	35	1,166.7
Tarai	311,791	100.0	308,166	100.0	215,407	100.0	–96,384	–30.9
India	308,516	98.9	301,143	97.7	207,802	96.5	–100,714	–32.6
China	7	0.0	30	0.0	461	0.2	454	6,485.7
Other Asia	2,899	0.9	6,903	2.2	6,138	2.8	3,239	111.7
Others/unstated	369	0.1	90	0.0	1,006	0.5	637	172.6
Total	337,620	100.0	337,448	100.0	234,039	100.0	–103,581	–30.7
India	324,159	96.0	322,718	95.6	222,278	95.0	–101,881	–31.4
China	8,061	2.4	1,534	0.5	2,481	1.1	–5,580	–69.2
Other Asia	4,885	1.4	12,495	3.7	7,827	3.3	2,942	–60.2
Others/unstated	515	0.1	701	0.2	1,453	0.6	938	182.1

Source: Nepal, CBS (1967: vol. II, table 12); Nepal, CBS (1975: vol. II, table 11); Nepal, CBS (1984: vol. I, pt. II, table 8).

Table 13. Citizenship of population: 1961, 1971, and 1981

	1961		1971		1981		Change 1961–81	
Citizenship category	Number	%	Number	%	Number	%	Number	%
India	76,311	69.3	128,829	94.4	116,755	24.2	40,444	53.0
Other Asia	7,973[a]	7.2	7,184	5.3	7,678[b]	1.6	–295	–3.7
Other countries			464	0.3				
Others/unstated	25,777	23.4			358,586	74.2	332,809	1,291.1
Total	110,061	100.0	136,477	100.0	483,019	100.0	372,958	338.9

Source: Nepal, CBS (1967: vol. II, table 9); Nepal, CBS (1975: vol. II, pt. I, table 12); Nepal, CBS (1984: vol. I, pt. III, table 11).

a. Other Asia includes China and Pakistan.

b. Other Asia includes China only.

ports this proposition.[4] Thus one can draw certain conclusions from the 1981 census figures on foreign-born and foreign citizens: A sizable number of foreign-born seem to have claimed to be Nepal-born; some long-term alien residents no longer regarded themselves as foreigners; and foreign citizens categorized as others/unstated include a sizable number of Nepalese nationals.

Immigration Estimates

The 1961 census reported 328,470 Nepalese outside the country and 337,620 as foreign-born, thus giving a net stock of 9,150 immigrants. The 1981 census reported 402,977 Nepalese outside the country and 234,039 as foreign-born; there was a 22.7 percent increase in emigration and a 30.7 percent decrease in immigration. The net emigration comes to 168,938. On the other hand, projecting the 1971 foreign-born population up to 1981 on the basis of the 1961–71 trend, there would be about 357,000 foreign-born persons in 1981.[5] This would mean 122,961 or 52.5 percent more foreign-born in 1981 than reported in the census.

Applying the intercensal cohort component method to estimate the volume of immigration during 1971–81, we get the following result:[6]

Macro region	1971 census (1)	1981 census (2)	Projected population in 1981 based on 1971 census (3)	Difference between expected and enumerated population 1981 (4) = (2) - (3)	Rate of growth (%)	
					Expected (5)	Reported (6)
Nepal	11,555,983	15,022,839	14,653,806	(+)369,033	2.40	2.66
Mountain and Hill	7,210,017	8,466,011	9,260,211	(-)794,200	2.53	1.62
Tarai	4,345,966	6,556,828	5,393,595	(+)1,163,233	2.18	4.20

The Mountain and Hill regions had a net loss of 794,200 persons; the Tarai had a net gain of 1,163,233 persons. On the basis of natural increase

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[4] Those reported as "others/unstated" ranged from 89 in Humla to 28,032 in Parsa. Six Tarai and six Hill districts reported more than 10,000 as "others/unstated." Of the 18 Tarai districts, only two reported fewer than 2,000 "others/unstated."

[5] Y. B. Karki, personal communication. This figure is computed in the following way:

$$\left\{\frac{2.92 - \left[2.92\left(\frac{3.59 - 2.92}{3.59}\right)\right]}{100}\right\} \times 15{,}022{,}839 = 356{,}799$$

Where 2.92 and 3.59 are the percentages of foreign-born in 1971 and 1961 respectively.

alone, the Tarai would have a population growth rate of 2.18 percent instead of the reported rate of 4.20 percent. Even if all the net loss from the Mountain and Hill regions were added to the expected population of the Tarai, the total would be 6,187,795—yielding a growth rate of 3.60 percent per annum during 1971–81. Thus the difference of 369,033 as additional population may be assumed as the volume of migration from outside the country. This extent of immigration comes to 2.5 percent of the total population.

Given the absence of reliable data on the volume of international migration, the Central Bureau of Statistics made an estimate by two-census projection using estimated mortality rates obtained from the West model life table (Nepal, CBS, 1985b:125–27). The estimation was confined to the male population. The net number of intercensal (1971–81) immigrants came out to be 154,267 for unadjusted and 161,344 for adjusted age data. The net immigrants accounted for 8.21 percent (unadjusted) to 8.58 percent (adjusted) of the total increase in male population during the period 1971–81. Considering that males constituted 30.6 percent of the total foreign-born reported in 1981,[7] the number of immigrants including females would total 441,596 or 88.7 percent more than the census figure. Thus during the two decades (1961–81) immigrants increased by 30.8 percent as compared to emigrants, whose number increased by 22.7 percent.[8] The excess of immigrants over emigrants in 1981 was over four times that of 1961.

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[6] See Nepal, NCP (1983b). The age groups of the 1971 population were separately survived by appropriate ratios according to region. Expectation of life at birth was about 40 years for the Tarai and 42.5 for the Hill including the Mountain region. Estimated total fertility rates according to 1971 data were 5.4 for the Tarai and 6.0 for the Hill. The total fertility rate was assumed to increase linearly from 6.0 to 6.3 in the Hill and from 5.4 to 5.9 in the Tarai during 1971–81. Life expectancy at birth was uniformly increased at the rate of 0.5 year per annum for both regions.

[7] The actual enumerated foreign-born by sex in the two censuses were:

	1971	%	1981	%	Change	%
Male	123,480	36.5	71,555	30.6	-51,925	-42.1
Female	213,968	63.4	162,484	69.4	-51,484	-24.1
Total	337,448	100.0	234,039	100.0	-103,409	-30.6

[8] Nepal had a net surplus of immigrants in the two censuses for which data and estimates are available:

	Census year		Increase	
	1961	1981	Absolute	%
A. Emigrants (absentee abroad)	328,470	402,977	74,507	22.7
B. Immigrants	337,620	441,596[a]	103,976	30.8
C. Foreign-born immigrants		234,039[b]		
Excess of B over A	9,150	38,619	29,469	322.1

a. Estimate (Nepal, CBS, 1985b:125–27).

b. Reported (Nepal, CBS, 1984: vol. I, pt. II, table 8).

Another evidence of increasing immigration is the comparatively high rate of growth of population with the Tarai and Indian-origin mother tongues. Of the 10 Hill region mother tongues, seven recorded an absolute decline. Of the seven Tarai mother tongues, only one (Awadhi) recorded a decline during 1971–81.[9] Maithili and Bhojpuri, the two largest groups after the national language (Nepali), showed progressive increases during the intercensal periods 1952/54–1961, 1961–71, and 1971–81. The percentage of growth during this period was 10.3, 17.4, and 25.7 percent for Maithili and 21, 39.7, and 41.7 percent for Bhojpuri. For the period 1952/54–1981, the annual growth rate was 4.23 percent for Nepali but 4.98 percent for Bhojpuri (Nepal, DOS, 1957: vol. I, pt. II, table 9; Nepal, CBS, 1984: vol. I, pt. III, table 12). Growth rates for Santhal (37.03 percent), Rajbansi (2.40 percent), Maithali (2.24 percent), and Tharu (1.85 percent) exceeded those of Hill mother tongues except Nepali. An official Indian source reported that as of 15 July 1980, some 10.9 million Indians were residing abroad and of this number some 3.8 million or 34.7 percent were residing in Nepal. (See *Sunday Statesman* (New Delhi), 6 June 1982, and *Economic Times* (New Delhi), 1 August 1982, pp. 6–8.) It also stated that among those residing in Nepal, 2,387,973 or 62.8 percent had acquired Nepalese citizenship. This statement seems to claim all of the Tarai linguistic population of Nepal as Indians. Although language is not a realistic measure for establishing nationaliity in the modern sense (Weiner 1978), these statistics regarding the number of Indians and their naturalization may be taken as evidence of significant immigration of Indians into Nepal.

The recent Demographic Sample Survey data (Nepal, CBS, 1988: tables B.1 to B.10) show that there are 28 immigrants per 1,000 population for the country (41 for females and 14 for males). This immigration rate is considerably higher than that provided by the 1981 census data—that is, 16 immigrants per 1,000 for the country (22 for females and 9 for males). The immigration rate was higher in urban (47) than rural (26) areas and highest in the Tarai (59) and lowest (2) in the Mountain region. Although earlier observers have noted the low rate of immigration (Rana and Thapa 1975; Banister and Thapa 1981), recent migratory trends and demographic estimates indicate that there has been increasing immigration, particularly in the Tarai and urban areas.

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[9] The classification of Tarai languages in the 1952/54 census is misleasing, as it reported 300,768 as Maithili, 16,335 as Bhojpuri, and only 27 as Awadhi speakers (Nepal, DOS, 1957: pt. I, sec. 2, table 9). It becomes evident from textual commentary (pt. II, sec. 2, pp. 60–71) that those classified as dialects of Cental Eastern and Far Eastern Tarai were actually Maithili, dialects under Eastern Tarai were Bhojpuri, and those of Far Western Tarai were Awadhi. The language data in the present analysis are derived from these adjustments.

INTERNAL MIGRATION

Traditionally the bulk of the Nepalese population was confined to the hill zone between the mountain barrier to the north and the malarial plain to the south. Until the middle of the present century, internal movement of population was mainly from the drier west to the wetter east along the subtropical hill zone. This migratory movement was part of a larger regional pattern whereby caste groups from Kumaon (India) migrated into Nepal and those from Nepal in turn spilled over into Darjeeling, Sikkim, Bhutan, and Assam in India. The control of endemic malaria in the Tarai and Inner Tarai lowlands in the last three decades has led to a large-scale shift of population from the hills to these new frontier lands (Gurung 1984b: 225–29).

Volume and Trend

The Nepalese census of 1952/54 did not include a question on place of birth, but the data on absentee population provide some measure of out-migration. The census recorded 218,833 persons as absent from home for six months or more; of these only 18,733 or 8.6 percent were reported within the country and the rest outside the country (Table 14). Among those within the country, 73.3 percent were residing in regions other than their region of birth (Nepal, DOS, 1957: pt. I, sec. III, table 2). More than 80 percent of these absentees originated in Mountain/Hill regions, the Eastern Mountain/Hill region alone contributing more than half. Kathmandu Valley with its three large towns was the destination of 55.9 percent of the absentees, and one-third had moved to the Tarai. Of the total net loss of absentees, 98.1 percent were from Mountain/Hill regions. The net gain in Kathmandu Valley (6,218) was higher than in the Tarai (4,442).

The 1961 census provided data both by place of birth and number of absentees. These two sets of data are not comparable, for the census recorded 422,402 as lifetime migrants and 386,424 as absentee population (Table 14)—indicating that data on absentee population underestimate the true extent of migration. Among the absentees, only 15.1 percent were reported within the country. The total absentee population increased by 78.4 percent during 1952/54–1961. This group constituted 2.6 percent of the total population in 1952/54 and 4.1 percent in 1961. For the same period, absentees increased by 1.7 times outside the country and by 3.1 times within the country, indicating increasing internal mobility.

The 1961 census defined persons residing in the place of enumeration over six months away from their place of birth as migrants. Of the total 422,402 lifetime migrants, 57.8 percent had moved within the same defined region and the remaining 42.2 percent were interregional migrants (Table 14). About 80 percent of the interregional migrants originated in the highlands (Table 15). The volume of out-migration from the Mountain/Hill regions was progressively larger from west to east, the latter region account-

Table 15. Interregional migration: 1961

Census region	In-migrants Number	In-migrants %	Out-migrants Number	Out-migrants %	Net migration
Highlands	40,579	22.7	141,959	79.6	-101,380
Mountain and Hill[a]	15,831	8.9	121,828	68.3	-105,9[illegible]
Far West	4,783	2.7	8,656	4.9	-3,873
West	5,694	3.2	38,326	21.5	-32,632
East	5,354	3.0	74,846	41.9	-69,492
Kathmandu Valley	24,748	13.9	20,131	11.3	+4,617
Lowlands	137,858	77.3	36,478	20.4	+101,380
Inner Tarai	36,351	20.4	29,494	16.5	+6,857
West	3,446	1.9	16,754	9.4	-13,308
Central	27,560	15.4	2,188	1.2	+25,372
East	5,345	3.0	10,552	5.9	-5,207
Tarai	101,507	56.9	6,984	3.9	+94,523
Far West	21,170	11.9	545	0.3	+20,625
Central	8,307	4.7	2,591	1.5	+5,716
East	72,030	40.4	3,848	2.2	+68,182
Total	178,437	100.0	178,437	100.0	0

Source: Nepal, CBS (1967: vol. II, table 11).

a. Excluding Kathmandu Valley.

ing for 41.9 percent of all out-migrants. Out-migration from the Tarai was only 3.9 percent of the total; the Far Western Tarai registered the least out-migration. Over three-quarters of the migrants were directed to the lowlands, mostly to the Tarai. The Eastern Tarai claimed 40.4 percent of the total in-migrants. The Central Tarai, including Chitawan district where the first resettlement was initiated in 1955, was the next region of importance in in-migration. Kathmandu Valley had 13.9 percent of the total in-migrants. The highlands had a net loss of 101,380 persons through out-migration; the Eastern Mountain/Hill regions alone accounted for nearly two-thirds. Kathmandu Valley was the sole highland region with a slight net gain. The Tarai had a net gain of 94,523 persons with increasing volume from west to east. Thus high net-gain Tarai regions were contiguous to high net-loss Mountain/Hill regions.

According to the 1971 census, the number of persons residing in regions other than their region of birth was 506,921 (Table 14). Although the 10 census regions of 1961 and 1971 are not strictly comparable (Figure 1), lifetime migration volumes at aggregate and macro-regional levels evidence increasing internal population mobility. At the aggregate level, the proportion of such migrants in the total population increased from 1.9 percent in 1961 to 4.4 percent in 1971 (Table 14). At the macro-regional level, the increase of out-migrants from the highlands was 3.4 times and the increase of in-migrants to the lowlands 4.1 times during the decade 1961–71 (Tables 15 and 16). Of the total interregional migrants in 1971, over two-thirds originated in the Hill zone, 9 percent each from the Mountain zone and Kathmandu Valley, and only 3.7 percent in the Tarai (Table 16). As in 1961, the Eastern Hill region had the highest volume of out-migration followed by the Central Hill region. The Western Tarai had the least out-migration.

More than 80 percent of the migrants were directed to the Tarai. Of the rest, 10.3 percent moved to the Hill zone, 5.2 percent to Kathmandu Valley, and only 1.9 percent to the Mountain region (Table 16). In-migration to the Tarai region was progressively higher from west to east. The Eastern Tarai's share was 36.7 percent of the total in-migrants. The Central Tarai had another 31.9 percent. The net loss from the highlands was 399,925, and 85.2 percent of this number was from the hills. Kathmandu Valley, which had a net gain of 4,617 in 1961, showed a net loss of 19,044 in 1971. Of the total net gain in the Tarai, 43.9 percent was in the east, 38.8 percent in the central sector, and 17.3 percent in the west.

The 1981 census enumerated 1,272,288 persons or 8.5 percent of the total population as residing in districts other than their district of birth (Ta-

Table 16. Interregional migration: 1971

	In-migrants		Out-migrants		
Census region	Number	%	Number	%	Net migration
Highlands	88,486	17.5	488,411	96.3	-399,925
Mountain	9,733	1.9	49,692	9.8	-39,959
West	2,125	0.4	9,681	1.9	-7,556
Central	1,223	0.2	2,095	0.4	-872
East	6,385	1.3	37,916	7.5	-31,531
Hill[a]	52,313	10.3	393,235	77.6	-340,922
West	5,063	1.0	65,750	13.0	-60,687
Central	29,752	5.9	140,642	27.7	-110,890
East	17,498	3.5	186,843	36.9	-169,345
Kathmandu Valley	26,440	5.2	45,484	9.0	-19,044
Lowlands	418,435	82.5	18,510	3.7	+399,925
Tarai	418,435	82.5	18,510	3.7	+399,925
West	70,885	14.0	1,739	0.3	+69,146
Central	161,751	31.9	6,504	1.3	+155,247
East	185,799	36.7	10,267	2.0	+175,532
Total	506,921	100.0	506,921	100.0	0

Source: Nepal, CBS (1975: vol. II, pt. I, table 10).

a. Excluding Kathmandu Valley.

ble 14). Among these lifetime migrants, 233,426 or 18.3 percent were in other districts but within the defined census region and the remaining 1,038,862 in other regions. The census regions of 1981 are not comparable to those of 1971, and their increase in number from 10 to 15 yields a larger volume of migrants due to the reduction of their defined migration field (Figure 1). However, the aggregation of regions into broad elevation zones (Mountain, Hill, and Tarai) provides some indication of the increasing volume of interregional migration. Thus the comparison of native-born population by place of birth and place of enumeration shows an increase of 108.8 percent in such lifetime migrants from 445,128 in 1971 to 929,585 in 1981 (Nepal, CBS, 1985b: tables 6.2 and 6.3). The increase in out-migration from the Mountain region was six times and that from the Hill zone 1.5 times, while the increase in in-migration to the Tarai was 1.8 times. The proportion of interregional migrants to the total population increased from 4.4 percent in 1971 to 6.9 percent in 1981 (Table 14).

The 1981 census provides data on absentee population—at district and regional levels for those outside the country but only at the regional level for those inside the country. The total absentee population reported was 590,772 or 3.9 percent of the total population (Table 14). Thus, between 1952/54 and 1981, absentees increased by 2.7 times. In 1952/54, only 8.6 percent of the absentees were reported inside the country. In 1981, absentees within the country constituted 31.8 percent of all absentees—indicating increasing internal mobility over the last three decades. During 1952/54–1981, absentees outside the country more than doubled while the increase of absentees inside the country was tenfold.

The absentee population as a percentage of regional population was 5.6 for the Hill, 8.2 for the Mountain, and 1.3 for the Tarai regoins (Table 17). The Eastern Mountain, Western Hill, and Far Western Hill regions had a high percentage of absentees. Of the total absentees from the highlands, 72.2 percent were outside the country. In the Tarai, 56.4 percent were inside the country. Of the total absentees within the country, the Hill region reported 59.8 percent, the Tarai 24.8 percent, and the Mountain region 15.3 percent (Table 17). More than half of these absentees were from the West, Central, and Eastern Hill regions. Far Western Tarai reported the least number of absentees. Of the total absentees, the Hill region reported 68.0 percent, the Mountain region 18.0 percent, and the Tarai 14.0 percent. The Western Hill region reported nearly a third of the total absentees. The Far Western Tarai and Midwestern Mountain regions reported a low number of absentees.

Direction of Flow

Lifetime internal migration

The principal direction of flow of lifetime internal migrants reported in 1981 was from the highlands to the lowlands. Of the total 1.3 million such migrants, 85.1 percent originated in the highlands and 68.8 percent were destined for the Tarai lowlands (Nepal, CBS, 1987: table 7.9). Among census regions, the Eastern Mountain and Hill regions accounted for 41.8 percent of out-migrants while the Eastern and Central Tarai claimed 47.4 percent of total in-migrants. Of the 319,870 out-migrants from the Mountain region, more than half moved to the Tarai, 42 percent to the Hill region, and 7.1 percent to the Mountain zone. Among Hill out-migrants, nearly a third moved to the Tarai, 22.1 percent to the Hill region, and only 4.4 percent to the Mountain region.

Most of the Tarai out-migrants moved within the Tarai. Those moving from the Tarai to the Hill zone constituted 18.9 percent and those moving to the Mountain zone only 1.2 percent. The Tarai recorded a higher internal population mobility in that 53.8 percent of the out-migrants moved within the Tarai zone (Table 18). Of all out-migrants from the Hill zone, 83.4 percent moved to districts outside the Hill zone. Of all out-migrants from the Mountain zone, 98.5 percent moved to districts in other elevation zones (Hill and Tarai).

Interregional migration

Of the total 1.3 million lifetime internal migrants, 1,038,862 or 81.7 percent were reported in districts outside the region of their birth. More than 90 percent of these interregional migrants originated in the highlands, and two-thirds of them were destined for the Tarai lowlands (Table 18). The Eastern Hill and Mountain regions accounted for 48.2 percent of the total interregional out-migrants (Table 19). Out-migrants from the five Tarai regions constituted only 8.4 percent of the total. The Far Western Tarai region had the least number of out-migrants (Figure 3). Of the total interregional in-migrants, 74.4 percent were in the Tarai, 20.4 percent in the Hill, and 5.2 percent in the Mountain regions (Table 18). The Eastern and Central Tarai had nearly half of the total in-migrants. The Western Mountain region recorded the least number of in-migrants.

Hill-to-Tarai flow was the dominant pattern of interregional migration (Figure 3). Migrants destined for the Tarai region from the adjacent Hill region constituted 87.2 percent in the Far West, 57.1 percent in the Midwest, 42 percent in the West, 69.8 percent in the Central, and 76.4 percent in the Eastern regions out of their total out-migrants (Table 18). The Western Hill region had a sizable migration stream to the Central Tarai, but it was less than that to the Western Tarai.

A Mountain-to-Hill flow of interregional migrants was also common in all east-west sectors but of smaller volume and with decreasing

Table 14. Population mobility according to censuses: 1952/54–1981

Item	1952/54		1961		1971		1981	
	Number	%	Number	%	Number	%	Number	%
Districts	55		55		75		75	
Regions	9		10		10		15	
Total population	8,473,478	100.0	9,412,996	100.0	11,555,983	100.0	15,022,839	100.0
Away from home	216,853	2.6	386,824	4.1			590,772	3.9
Inside country	18,733	0.2	58,354	0.6			187,795	1.3
Outside country	198,120	2.3	328,470	3.5			402,977	2.7
Native-born			9,075,376	96.4	11,218,535	97.1	14,788,800	98.4
Foreign-born			337,620	3.6	337,448	2.9	234,039	1.6
Nonmigrants			8,652,974	91.9	10,711,610	92.7	13,516,512	90.0
Lifetime migrants (district as unit area)			422,402	4.5			1,272,288	8.5
Migration within defined region			243,965	2.6			233,426	1.6
Interregional migrants			178,437	1.9	506,921	4.4	1,038,862	6.9

Source: Nepal, DOS (1957); Nepal, CBS (1967, 1975, 1984).

Table 17. Absentee population by census region: 1981

Census region	Within country[a]		Outside country[b]		Total		As percentage of population within region
	Number	%	Number	%	Number	%	
Nepal	187,795	100.0	402,977	100.0	590,772	100.0	3.9
Mountain	28,810	15.3	77,510	19.2	106,320	18.0	8.2
Far West	1,974	1.1	9,632	2.4	11,606	2.0	4.0
Midwest	1,985	1.1	2,453	0.6	4,438	0.8	1.8
West	8,896	4.7	36,606	9.1	45,502	7.7	228.1[c]
Central	6,163	3.3	10,514	2.6	16,677	2.8	4.0
East	9,792	5.2	18,305	4.5	28,097	4.8	13.2
Hill	112,391	59.8	289,415	71.8	401,806	68.0	5.6
Far West	8,646	4.6	37,595	9.3	46,241	7.8	7.7
Midwest	7,207	3.8	36,190	9.0	43,397	7.3	4.2
West	32,593	17.4	156,512	38.8	189,105	32.0	8.8
Central	29,403	15.7	27,289	6.8	56,692	9.6	2.7
East	34,542	18.4	31,829	7.9	66,371	11.2	5.2
Tarai	46,594	24.8	36,052	8.9	82,646	14.0	1.3
Far West	1,201	0.6	4,112	1.0	5,313	0.9	1.2
Midwest	3,509	1.9	5,471	1.3	8,980	1.5	1.3
West	4,224	2.2	9,217	2.3	13,441	2.3	1.4
Central	16,761	8.9	9,220	2.3	26,011	4.4	1.1
East	20,899	11.1	8,032	2.0	28,931	4.9	1.4

a. Nepal, CBS (1984: vol. IV, table 12).

b. Nepal, CBS (1984: vol. IV, table 3).

c. The number of lifetime migrants being higher than enumerated population is unlikely and more artificial than real. The Western mountains comprise two districts, Mustang and Manang. A number of *panchayats* from Mustang were incorporated into a contiguous Hill district in 1975. The population of these *panchayats* in 1981 could therefore have been counted in a census region different from their region of birth. This could lead to the finding of more migrants than enumerated population (see Nepal, CBS, 1987:160).

Table 19. Interregional migration by census region: 1981

Census region	In-migrants Number	In-migrants %	Out-migrants Number	Out-migrants %	Net migration
Mountain	53,628	5.2	315,095	30.3	-261,467
Far West	10,886	1.0	13,241	1.3	-2,355
Midwest	7,330	0.7	5,912	0.6	+1,418
West	1,080	0.1	38,219	3.7	-37,139
Central	10,425	1.0	21,736	2.1	-11,311
East	23,907	2.3	235,987	22.7	-212,080
Hill	211,927	20.4	636,638	61.3	-424,711
Far West	14,559	1.4	47,371	4.6	-32,812
Midwest	31,500	3.0	54,528	5.2	-23,028
West	62,572	6.0	150,104	14.4	-87,532
Central[a]	71,873	6.9	119,275	11.5	-47,402
East	31,423	3.0	265,360	25.5	-233,937
Tarai	773,307	74.4	87,129	8.4	+686,178
Far West	92,200	8.9	1,211	0.1	+90,989
Midwest	54,364	5.2	13,238	1.3	+41,126
West	111,435	10.7	4,672	0.4	+106,763
Central	214,473	20.6	29,053	2.8	+185,420
East	300,835	29.0	38,955	3.7	+261,880
Total	1,038,862	100.0	1,038,862	100.0	0

Source: Nepal, CBS (1984: vol. II, tables 7 and 8).

Note: This table excludes those moving from one district to another within the same region. See also Map 3.

a. Including Kathmandu Valley

intensity westward. In the case of the Western and Eastern Mountain regions, a larger volume was directed to their respective Tarai regions than to their immediate Hill regions (Figure 3). Again, the Eastern Mountain region had more migrants to the Central, Western, and Midwestern Hills than to the adjacent Eastern Hill region. In fact, the Eastern Mountain region appears as a singular locus of exodus sending migrants to all other regions.

Counterstreams of migration from the Tarai to the Hill region and from the Hill to Mountain regions were not significant. A sizable migration from the Eastern Hill to Eastern Mountain regions was the only deviation from the general pattern of flow from higher to lower elevation zones. Lateral flows in all elevation zones were predominantly from east to west. Lateral counterflows, observed among Hill regions, were absent in the Mountain region and not prominent in the Tarai. All Mountain and Hill regions except the Midwestern mountain experienced a net loss through interregional migration (Table 19). The net loss from the Hill regions was 61.8 percent of all out-migration, and more than half of this was from the Eastern Hill region alone. The Central Hill region, including metropolitan Kathmandu, also recorded a net loss (Map 3). The net loss from the Eastern Mountain region was higher than that of the Hill regions except Eastern Hill. All Tarai regions gained through net migration. The Eastern and Central Tarai together claimed 65.1 percent of the net gain. The net gain for the Western Tarai was half that of the Central Tarai and one-third that of the Eastern Tarai. The net loss in the Mountain and Hill regions similarly was much greater in the Eastern sector.

In terms of net migration streams, the dominant flow was from the Hill regions to the Tarai (Figure 4). Net migration from the hills to the adjacent Tarai was 74.5 percent in the East, 42 percent in the Central, 59.1 percent in the West, 61.9 percent in the Midwest, and 44.9 percent in the Western sector (Table 20 and Map 3). Mountain regions lost both to adjacent Hill regions and to the Tarai. Mountain-to-Hill net migration showed some deviation in that the Eastern, Midwestern, and Far Western Mountains lost more to other hills than to their immediate hill regions. The overall volume of such net migration was, however, small.

The Eastern Tarai had large net migration volumes (exceeding 50,000) from the Eastern Hill and Mountain regions while the Central Tarai had large volumes from the Central and the Western Hill region (Map 3). Western Tarai in-migrants were mostly from Western Hill and Mountain regions. Net migration from the Eastern Mountain to Central and Western Hill regions and from the Midwestern and Far Western Hills to their adjacent Tarai regions ranged from 20,001 to 50,000 persons (Figure 4). The next net migration stream, 10,001 to 20,000, included those from the Eastern Mountain to Midwestern Hill and Central Tarai regions, from the Eastern Hill to Central Tarai regions, and from the Midwestern Hill to Far Western Tarai regions.

That more out-migrants from the Mountain region were destined for the Tarai provides a clear indication that the Tarai had a stronger pull than the intervening hills. Except for the Midwestern region, which sent more migrants to Far Western than to Midwestern Tarai, there was a clear relationship between the volume of net migration and geographic distance. In other words, the volume of net migration decreased with increasing distance. This relationship was most obvious in the case of the Hill-to-Tarai flow, which constituted the bulk of net migration.

The 15 census regions of 1981 can be categorized according to an index of attraction (ESCAP 1976:53). Thus all five Tarai regions rank high as a destination. The Far Western Tarai with an index of 21.6 was by far the most attractive region. That this region also happened to have the largest percentage of area under forest (Appendix Table 3) suggests that the availability of forest land for conversion to farmland was an important factor of migration in Nepal. In other words, land or agricultural colonization was the main motivation for interregional migration. The next regions of attraction were the Central and Eastern Tarai, which had an index of 18.9 and

13.0 respectively. The index of attraction for Hill regions varied from 2.9 in the East to 9.8 in the Central sector with some urban localities. None of the Mountain regions had an attraction index exceeding 1.5, and the lowest was in the Western Mountain region with a sizable population decline.

Duration of Stay

Data on the migrants' duration of stay was collected for the first time in the 1981 census. Of the 1 million interregional migrants, 36.5 percent had been residing in the place of enumeration for 12 years or more (Table 21). Another third had migrated within one to five years. Over one-fifth (22.7 percent) had migrated within six to 11 years and only 2.2 percent in less than a year. The remaining 5.5 percent were in the unstated category. The unstated category was a high 42.7 percent for the Eastern Tarai and 30.8 percent for the Eastern Mountain region of the total in-migrants and a high 55.7 percent for the Eastern Hill region and 23.4 percent for the Eastern Mountain region of the total out-migrants.

A third of the in-migrants to the Mountain region were in the unstated category (Table 21). Of the remainder, 31.5 percent had migrated within one to five years and 26.6 percent over 11 years or more. In the hills, over half had migrated within one to five years and 29.4 percent over 11 years and more. The Tarai had more migrating in the earlier years (over 11 years) than those within one to five years. The Tarai also had a higher percentage of those migrating during the last six to 11 years than reported in the highlands.

Over half of the out-migrants from the Mountain region had moved out within the last five years (Table 21). The next largest group were those of 12 years and longer duration. In the hills, the largest group of out-migrants was of 12 years and longer duration, followed by those of six to 11 years' duration. The Tarai also had more out-migrants of longer duration of residence (over 11 years) than in the hills, but the next largest group was those of one to five years' duration.

Among out-migrants of long duration of stay (over 11 years), the Hill region had 67.7 percent, the Mountain region 22.8 percent, and the Tarai 9.5 percent. The highlands had a share of 93.6 percent among thse of medium duration (six to 11 years) and 92 percent among those of short duration (less than five years), indicating increasing out-migration from these regions in recent years.

Among in-migrants of long duration of stay (over 11 years), the Tarai had 79.8 percent, the Hill region 16.4 percent, and the Mountain region 3.7 percent. The Tarai had a share of 87.3 percent among in-migrants of medium duration and 64.1 percent among those of short duration, suggesting a slight increase in in-migration into the hills in recent years.

Table 18. Origin and destination of interregional migrants: 1981

	Destination											
	Mountain						Hill					
Origin	Far West	Mid-west	West	Central	East	Total	Far West	Mid-west	West	Central	East	Total
Mountain	6,876	5,296	148	5,603	86	18,009	10,851	19,740	40,385	44,481	18,797	134,254
Far West		580	2	8	6	596	1,844	65	61	131	33	2,134
Midwest	651		3	8	12	674	846	1,153	508	185	37	2,729
West	21	49		29	15	114	100	138	5,526	1,377	96	7,237
Central	21	12	17		53	103	90	102	400	10,186	411	11,189
East	6,183	4,655	126	5,558		16,522	7,971	18,282	33,890	32,602	18,220	110,965
Hill	3,521	1,665	820	4,377	23,040	33,423	2,537	7,391	11,530	16,215	4,331	42,004
Far West	1,274	145	4	11	17	1,451		2,364	134	330	52	2,880
Midwest	649	859	9	34	621	2,172	910		1,537	607	121	3,175
West	97	158	648	124	65	1,092	300	1,638		5,512	343	7,793
Central	149	149	101	3,800	1,047	5,246	440	767	4,448		3,815	9,470
East	1,352	354	58	408	21,290	23,462	887	2,622	5,411	9,766		18,686
Tarai	489	369	112	445	781	2,196	1,171	4,369	10,657	11,177	8,295	35,669
Far West	16	9	1	3	2	31	441	98	42	93	25	699
Midwest	13	46	2	16	9	86	95	1,014	158	994	44	2,305
West	32	34	78	39	23	206	91	253	1,174	761	99	2,378
Central	57	138	18	174	108	495	195	653	6,884	5,123	713	13,568
East	371	142	13	213	639	1,378	349	2,351	2,399	4,206	7,414	16,719
Total in-migrants	10,886	7,330	1,080	10,425	23,907	53,628	14,559	31,500	62,572	71,873	31,423	211,927
Percentage	1.0	0.7	0.1	1.0	2.3	5.2	1.4	3.0	6.0	6.9	3.0	20.4

Table 18. *(continued)*

	Destination							
	Tarai							
Origin	Far West	Mid-west	West	Central	East	Total	Total out-migrants	%
Mountain	17,938	8,582	32,635	31,903	71,774	162,832	315,095	30.3
Far West	9,900	114	52	197	248	10,511	13,241	1.3
Midwest	1,466	651	133	163	96	2,509	5,912	0.6
West	667	1,174	22,659	5,953	415	30,868	38,219	3.7
Central	182	241	224	8,651	1,146	10,444	21,736	2.1
East	5,723	6,402	9,567	16,939	69,869	108,500	235,987	22.7
Hill	62,665	42,393	74,714	162,743	218,696	561,211	636,638	61.3
Far West	41,285	971	173	264	347	43,040	47,371	4.6
Midwest	12,486	31,110	4,549	709	327	49,181	54,528	5.2
West	4,086	6,968	64,328	63,210	2,627	141,219	150,104	14.4
Central	2,480	1,976	4,010	83,290	12,803	104,559	119,275	11.5
East	2,328	1,368	1,654	15,270	202,592	223,212	265,360	25.5
Tarai	11,597	3,389	4,086	19,827	10,365	49,264	87,129	8.4
Far West		215	35	102	129	481	1,211	0.1
Midwest	9,486		430	742	189	10,847	13,238	1.3
West	300	613		843	332	2,088	4,672	0.4
Central	735	1,889	2,651		9,715	14,990	29,053	2.8
East	1,076	672	970	18,140		20,858	38,955	3.7
Total in-migrants	92,200	54,364	111,435	214,473	300,835	773,307	1,038,862	
Percentage	8.9	5.2	10.7	20.6	29.0	74.4	100.0	

Source: Nepal, CBS (1984: vol. II, table 8).

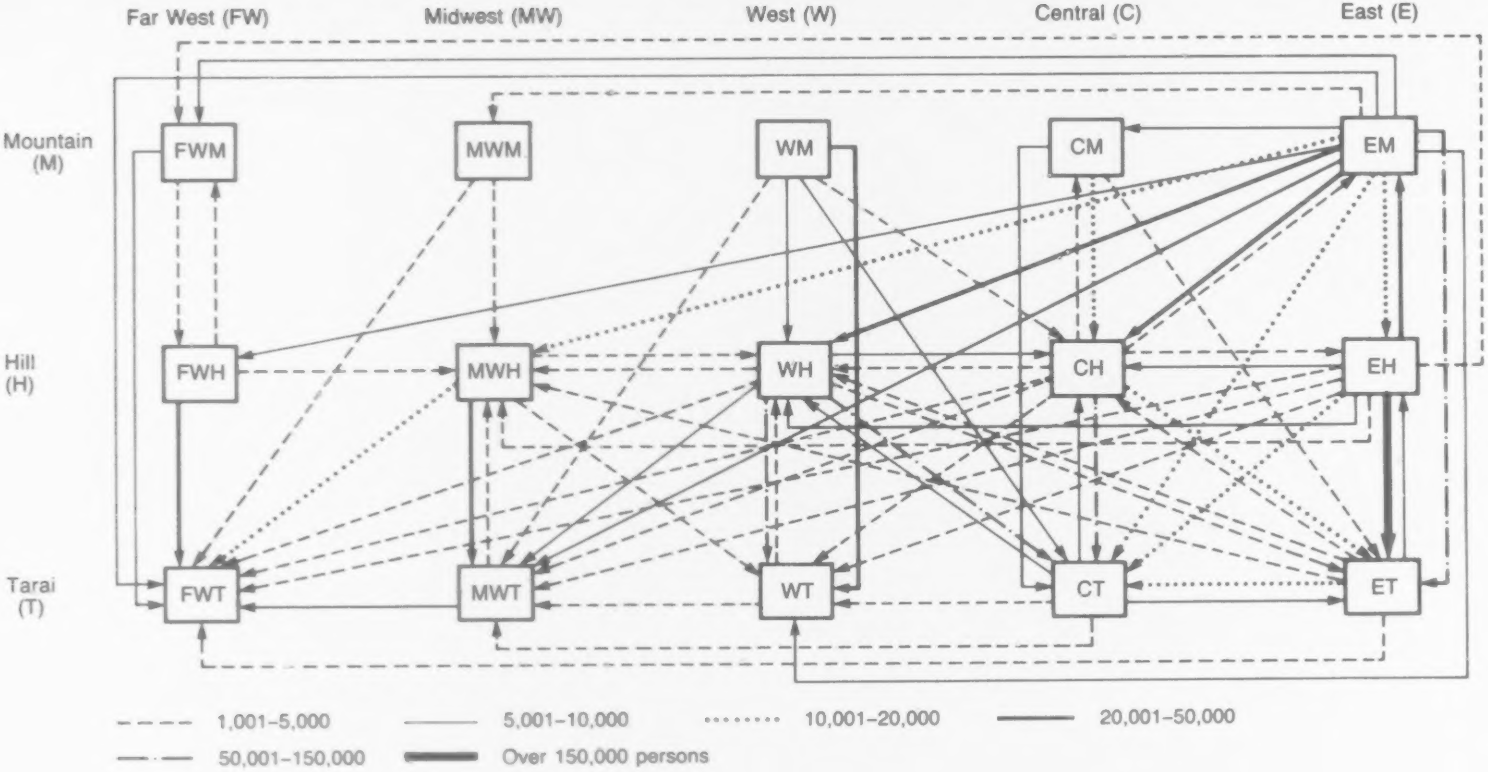
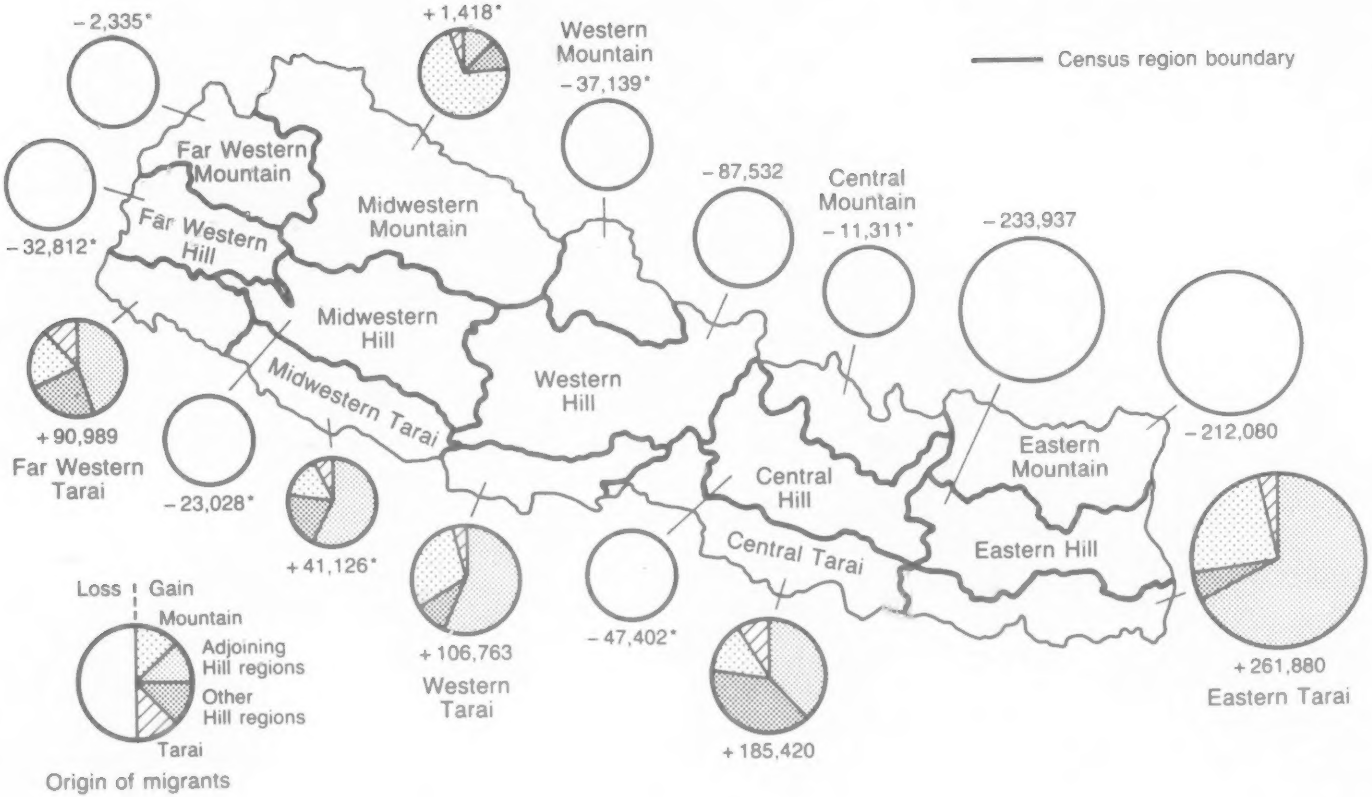

Far West (FW)
Midwest (MW)
West (W)
Central (C)
East (E)
Mountain (M)
Hill (H)
Tarai (T)
FWM
MWM
WM
CM
EM
FWH
MWH
WH
CH
EH
FWT
MWT
WT
CT
ET
1,001–5,000
5,001–10,000
10,001–20,000
20,001–50,000
50,001–150,000
Over 150,000 persons

Figure 3. Volume and direction of interregional migration: 1981

Source: Table 18.


Census region boundary
- 2,335*
+ 1,418*
Western Mountain
- 37,139*
Far Western Mountain
Midwestern Mountain
- 32,812*
Far Western Hill
- 87,532
Central Mountain
- 11,311*
- 233,937
Midwestern Hill
Western Hill
Midwestern Tarai
Eastern Mountain
- 212,080
+ 90,989
Far Western Tarai
- 23,028*
+ 41,126*
Central Hill
Eastern Hill
Central Tarai
+ 106,763
Western Tarai
- 47,402*
+ 185,420
+ 261,880
Eastern Tarai
Loss
Gain
Mountain
Adjoining Hill regions
Other Hill regions
Tarai
Origin of migrants

Map 3. Volume of net migration by census region: 1981

Source: Table 19.

Note: Circles representing net migration volume of less than 50,000, indicated by an asterisk (*), have a standard diameter. Circles representing net migration volumes greater than 50,000 are proportionate to volume.

Age and Sex

More than 70 percent of the interregional migrants were in the 15–59 age group (Table 22). The proportion of this age group in the total population of Nepal was 60 percent. The child age group (below 15 years) constituted 22.6 percent for interregional migrants and 41.4 percent for the total population. Those in the old age group (over 59 years) comprised 7.2 percent of interregional migrants and 5.7 percent of the total population. Nearly three-quarters of out-migrants from the Hill regions were members of the 15–59 age group. The percentage of out-migrants in this age group was 68.8 for the Tarai and 61.9 for the Mountain regions. Out-migration of the old age group had only a slight regional variation from 6.2 percent for the Mountain to 7.8 percent for the Hill. Out-migration of the child age group ranged from a high 31.9 percent for the Mountain region to a low 17.7 percent for the Hill.

Three-quarters of all in-migrants to the Tarai were in the 15–59 age group. Their proportion among Mountain and Hill in-migrants was just over 60 percent (Table 22). The Tarai had a slightly higher percentage of old-age in-migrants than the Mountain and Hill zones. The situation was reversed in the case of in-migrants of the child age group with a low share for the Tarai and a high share for the Hill region.

Two-thirds of the out-migrants of the 15–59 age group originated in the Hill region, and 77.9 percent of such in-migrants were reported in the Tarai. In the case of old-age migrants, the Hill regions claimed 66.2 percent of out-migrants and the Tarai 78.5 percent of in-migrants. Among the child age group, the proportion of out-migrants from the Mountain regions was quite high but less than that of the Hill regions while the Tarai claimed 62.3 percent of the in-migrants. The proportion of the child age group out-migrating from the Eastern Mountain was significantly high.

Compared to 51.2 percent of males in the total population, 51.3 percent of interregional migrants were males. However, the ratio of 105 males for every 100 females in the 1981 census was lower than that of the 1971 census, which had 107 males for every 100 females (Banister and Thapa 1981:74–75). Among out-migrants, the sex ratio was higher in the highlands (107) and low (87.1) in the Tarai compared to the total sex ratio of 105.3 (Table 23). There were regional variations within each elevation zone. All Mountain regions except the East had more female out-migrants. In the Tarai only the West and Midwest had more males; the latter had the highest male percentage. All five Hill regions had more males out-migrating.

In the case of in-migrants, the Tarai regions had a higher percentage of males. The sex ratio varied from 81.5 for the Mountain zone to 98.0 for the Hill and 109.2 for the Tarai. All Tarai regions had more male than female in-migrants—as high as 121 males for every 100 females in the Far West. In the Hill zone, the East and Midwest had more female in-migrants whereas males and females were equally divided in the West. In the Mountain zone,

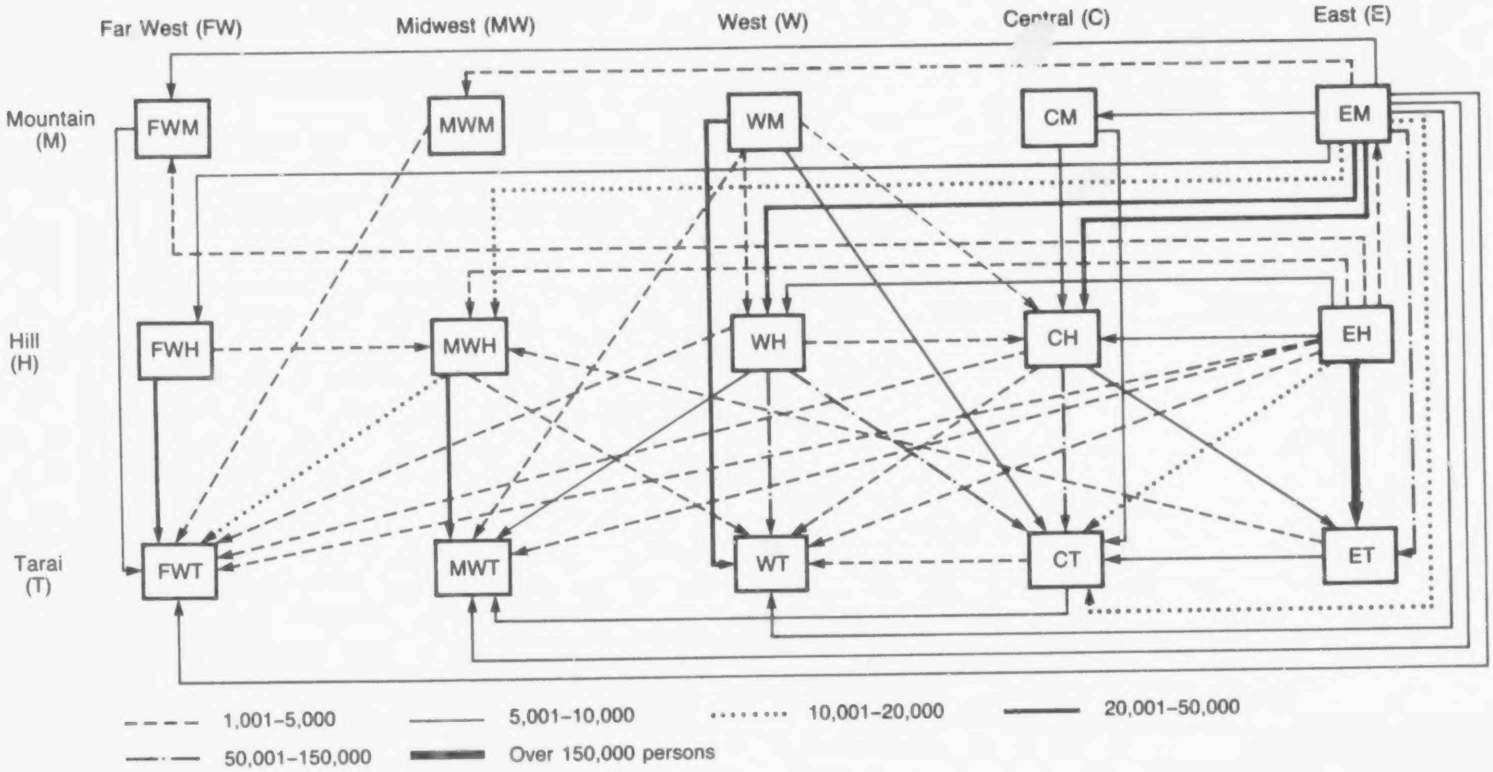

Far West (FW)
Midwest (MW)
West (W)
Central (C)
East (E)
Mountain (M)
Hill (H)
Tarai (T)
FWM
MWM
WM
CM
EM
FWH
MWH
WH
CH
EH
FWT
MWT
WT
CT
ET
1,001–5,000
5,001–10,000
10,001–20,000
20,001–50,000
50,001–150,000
Over 150,000 persons

Figure 4. Net migration streams by census region: 1981
Source: Table 20.

Table 20. Net migration streams by census region: 1981

	Destination											
	Mountain						Hill					
Origin	Far West	Mid-west	West	Central	East	Total	Far West	Mid-west	West	Central	East	Total
Mountain	6,280	4,622	34	5,500	-16,436		9,400	17,568	39,293	39,235	-4,665	100,831
Far West		-71	-19	-13	-6,177	-6,280	570	-584	-36	-18	-1,319	-1,387
Midwest	71		-46	-4	-4,643	-4,622	701	294	350	36	-317	1,064
West	19	46		12	-111	-34	96	129	4,878	1,276	38	6,417
Central	13	4	-12		-5,505	-5,500	79	68	276	6,386	3	6,812
East	6,177	4,643	111	5,505		16,436	7,954	17,661	33,825	31,555	-3,070	87,925
Hill	1,387	-1,064	-6,417	-6,812	-87,925	-100,831	-343	4,216	3,737	6,745	-14,355	
Far West	-570	-701	-96	-79	-7,954	-9,400		1,454	-166	-110	-835	343
Midwest	584	-294	-129	-68	-17,661	-17,568	-1,454		-101	-160	-2,501	-4,216
West	36	-350	-4,878	-276	-33,825	-39,293	166	101		1,064	-5,068	-3,737
Central	18	-36	-1,276	-6,386	-31,555	-39,235	110	160	-1,064		-5,951	-6,745
East	1,319	317	-38	-3	3,070	4,665	835	2,501	5,068	5,951		14,355
Tarai	-10,022	-2,140	-30,756	-9,999	-107,719	-160,636	-41,869	-44,812	-130,562	-93,382	-214,917	-525,542
Far West	-9,884	-1,457	-666	-179	-5,721	-17,907	-40,844	-12,388	-4,044	-2,387	-2,303	-61,966
Midwest	-101	-605	-1,172	-225	-6,393	-8,496	-876	-30,096	-6,810	-982	-1,324	-40,088
West	-20	-99	-22,581	-185	-9,544	-32,429	-82	-4,296	-63,154	-3,249	-1,555	-72,336
Central	-140	-25	-5,935	-8,477	-16,831	-31,408	-69	-56	-56,326	-78,167	-14,557	-149,175
East	123	46	-402	-933	-69,230	-70,396	2	2,024	-228	-8,597	-195,178	-201,977
Total	-2,355	1,418	-37,139	-11,311	-212,080		-32,812	23,028	-87,532	-47,402	-233,937	

Table 20. *(continued)*

	Destination					
	Tarai					
Origin	Far West	Mid-west	West	Central	East	Total
Mountain	17,907	8,496	32,429	31,408	70,396	160,636
Far West	9,884	101	20	140	-123	10,022
Midwest	1,457	605	99	25	-46	2,140
West	666	1,172	22,581	5,935	402	30,756
Central	179	225	185	8,477	933	9,999
East	5,721	6,393	9,544	16,831	69,230	107,719
Hill	61,966	40,088	72,336	149,175	201,977	525,542
Far West	40,844	876	82	69	-2	41,869
Midwest	12,388	30,096	4,296	56	-2,024	44,812
West	4,044	6,810	63,154	56,326	228	130,562
Central	2,387	982	3,249	78,167	8,597	93,382
East	2,303	1,324	1,555	14,557	195,178	214,917
Tarai	11,116	-7,458	1,998	4,837	-10,493	
Far West		-9,271	-265	-633	-947	-11,116
Midwest	9,271		-183	-1,147	-483	7,458
West	265	183		-1,808	-638	-1,998
Central	633	1,147	1,808		-8,425	-4,837
East	947	483	638	8,425		10,493
Total	90,989	41,126	106,763	185,420	261,880	

Source: Nepal, CBS (1984: vol. II, table 8).

Table 21. Duration of stay of interregional migrants: 1981

Census region	In-migrants						Out-migrants					
	Less than 1 year	1–5 years	6–11 years	12 years and over	Un-stated	Total	Less than 1 year	1–5 years	6–11 years	12 years and over	Un-stated	Total
Mountain	931	16,902	3,778	14,258	17,759	53,628	7,113	152,652	54,319	86,430	14,581	315,095
	(1.7)	(31.5)	(7.0)	(26.6)	(33.1)	(100.0)	(2.3)	(48.4)	(17.2)	(27.4)	(4.6)	(100.0)
Far West	167	5,142	682	4,895		10,886	193	2,865	3,502	6,619	62	13,241
Midwest	203	4,418	494	2,215		7,330	179	1,721	1,391	2,548	73	5,912
West	35	530	125	390		1,080	902	10,888	10,129	16,169	131	38,219
Central	214	4,883	1,419	3,828	81	10,425	499	5,503	4,928	9,817	989	21,736
East	312	1,929	1,058	2,930	17,678	23,907	5,340	131,675	34,369	51,277	13,326	235,987
Hill	5,855	108,183	26,123	62,279	9,457	211,927	13,684	164,263	165,870	256,855	35,966	636,638
	(2.8)	(51.0)	(12.3)	(29.4)	(4.5)	(100.0)	(2.1)	(25.8)	(26.1)	(40.3)	(5.6)	(100.0)
Far West	404	7,931	1,442	4,781	1	14,559	701	11,425	15,356	19,796	93	47,371
Midwest	799	17,651	3,227	9,822	1	31,500	1,039	11,065	16,876	24,702	846	54,528
West	1,928	33,708	6,076	20,859	1	62,572	3,555	39,299	41,278	65,268	704	150,104
Central	1,640	36,286	10,767	19,408	3,742	71,873	3,504	31,392	30,649	51,311	2,419	119,275
East	1,084	12,607	4,611	7,409	5,712	31,423	4,885	71,082	61,711	95,778	31,904	265,360
Tarai	16,540	218,495	205,445	302,736	30,091	773,307	2,559	26,665	15,157	35,988	6,760	87,129
	(2.1)	(28.3)	(26.6)	(39.1)	(3.9)	(100.0)	(2.9)	(30.6)	(17.4)	(41.3)	(7.8)	(100.0)
Far West	1,550	23,793	27,205	39,650	2	92,200	42	333	231	584	21	1,211
Midwest	1,187	18,120	17,175	17,882		54,364	255	2,629	2,716	6,895	743	13,238
West	2,732	35,969	33,228	39,506		111,435	193	1,677	754	1,868	180	4,672
Central	4,067	56,764	50,713	97,308	5,621	214,473	955	9,449	5,066	12,357	1,226	29,053
East	7,004	83,849	77,124	108,390	24,468	300,835	1,114	12,577	6,390	14,284	4,590	38,955
Total	23,356	343,580	235,346	379,273	57,307	1,038,862	23,356	343,580	235,346	379,273	57,307	1,038,862
Percentage	(2.2)	(33.1)	(22.7)	(36.5)	(5.5)	(100.0)	(2.2)	(33.1)	(22.7)	(36.5)	(5.5)	(100.0)

Source: Nepal, CBS (1984: vol. II, table 8).

Note: Percentages are given in parentheses.

Table 22. Broad age group of interregional migrants: 1981

Region	In-migrants				Out-migrants			
	Below 15 years	15–59 years	Over 59 years	Total	Below 15 years	15–59 years	Over 59 years	Total
Mountain	16,831	33,144	3,653	53,628	100,406	195,109	19,580	315,095
	(31.4)	(61.8)	(6.8)	(100.0)	(31.9)	(61.9)	(6.2)	(100.0)
Far West	3,686	6,443	757	10,886	1,546	10,837	858	13,241
Midwest	2,224	4,708	398	7,330	1,236	4,222	454	5,912
West	211	850	19	1,080	6,549	28,896	2,774	38,219
Central	3,089	6,675	661	10,425	3,214	16,849	1,673	21,736
East	7,621	14,468	1,818	23,907	87,861	134,305	13,821	235,987
Hill	71,553	127,991	12,383	211,927	112,610	474,622	49,406	636,638
	(33.8)	(60.4)	(5.8)	(100.0)	(17.7)	(74.5)	(7.8)	(100.0)
Far West	5,145	8,506	908	14,559	7,091	37,159	3,121	47,371
Midwest	12,476	17,414	1,610	31,500	8,828	41,975	3,725	54,528
West	23,608	35,013	3,951	62,572	23,955	113,941	12,208	150,104
Central	21,288	46,695	3,890	71,873	21,022	88,937	9,316	119,275
East	9,036	20,363	2,024	31,423	51,714	192,610	21,036	265,360
Tarai	146,242	568,537	58,528	773,307	21,610	59,941	5,578	87,129
	(18.9)	(73.5)	(7.6)	(100.0)	(24.8)	(68.8)	(6.4)	(100.0)
Far West	16,109	70,047	6,044	92,200	359	783	69	1,211
Midwest	13,124	38,132	3,108	54,364	2,304	9,823	1,111	13,238
West	25,140	78,055	8,240	111,435	1,155	3,209	308	4,672
Central	37,795	158,848	17,830	214,473	7,863	19,631	1,559	29,053
East	54,074	223,455	23,306	300,835	9,929	26,495	2,531	38,955
Total	234,626	729,672	74,564	1,038,862	234,626	729,672	74,564	1,038,862
	(22.6)	(70.2)	(7.2)	(100.0)	(22.6)	(70.2)	(7.2)	(100.0)

Source: Nepal, CBS (1984: vol. II, table 8).
Note: Percentages are given in parentheses.

Table 23. Sex ratio of interregional migrants: 1981

Census region	In-migrants	Out-migrants	Net migration
Mountain	81.5	107.0	112.8
Far West	83.8	97.2	197.6
Midwest	89.0	92.7	75.0
West	239.6	90.5	88.0
Central	77.6	93.1	109.6
East	76.5	112.3	117.4
Hill	98.0	107.5	112.3
Far West	102.0	104.5	105.3
Midwest	91.2	107.5	134.7
West	100.0	109.6	117.4
Central	112.3	110.5	107.5
East	71.8	104.9	112.3
Tarai	109.2	87.1	112.8
Far West	121.2	90.1	121.7
Midwest	107.9	115.5	114.1
West	106.2	107.9	106.2
Central	105.8	78.9	110.5
East	109.6	82.1	114.6
Total	105.3	105.3	

Source: Nepal, CBS (1984: vol. II, table 8).

all regions except the West had more female in-migrants. The Western Mountain region had 240 male in-migrants for every 100 females.

Males predominated in net migration in most regions (Table 23). The exceptions were the Midwestern and Western Mountain regions. The percentage of male net migration was about the same in all Tarai regions. It varied widely in the Mountain zone—from 42.8 percent in the Midwest to 66.4 percent in the Far West. In the Hill zone, the percentage of males in net migration was highest in the Midwest. The percentage of females among interregional migrants was 48.2 for those with over 11 years of duration of stay, 47.9 for those of six to 11 years, and 45.3 for those with less than six years (Nepal, CBS, 1984: vol. II, table 8). Thus, the longer the duration of stay of interregional migrants, the higher the percentage of females.

Reasons

The Nepal census of 1981 was the first to include data on reasons for migration. Although more than a third of the interregional migrants have been lumped as "others/unstated," the five categories do provide some indication regarding the motives for migration. Agriculture was the principal reason for migration with 29.9 percent of all interregional migrants (Table 24).

Trade and commerce came next with 14.5 percent. The other reasons were marital relations (11.6 percent), service (4.1 percent), and study/ training (2.9 percent).

Interesting regional patterns emerge when out-migration and in-migration are compared according to reasons. The principal reason for out-migration was trade and commerce (32.9 percent) in the Mountain region, agriculture (37.3 percent) in the Hill region, and marital relations (20.8 percent) in the Tarai (Table 24 and Figure 5). The next important reason for out-migration was agriculture in the Mountain and the Tarai zones, and marriage in the Hill zone. The least important reason was service in the Mountain region, and education in the Hill and Tarai zones. Agriculture was the principal reason for out-migration in the Far Western Mountain and Hill regions. It was ranked low in the Western and Central Tarai. More than 40 percent of those out-migrating from the Eastern Mountain region migrated for trade. Regions with a low percentage of out-migrants for trade were the Far Western and Western Hill regions and the Midwestern Tarai (Table 24). More than a fifth of out-migrants from the Central and Eastern Tarai migrated for marital reasons. About a tenth of the out-migrants from the Central Mountain region and the Western Tarai migrated for military service.

More than three-fourths of all out-migration for agriculture originated in the Hill region. The Eastern Hill region contributed 29.8 percent and the Western Hill region 19.3 percent (Table 24). Only 4.6 percent of those out-migrating for agriculture were from the Tarai. More than two-thirds of out-migrants for trade were from the Mountain region, a high 65 percent from the Eastern Mountain sector alone. Trade as a reason for out-migration was least significant in the Western regions of the Tarai. More than two-thirds of those out-migrating for marriage, education, and service were from the Hill region. Out-migration for marriage and service was highest in the Eastern Hill region and lowest in the Far Western Tarai. Nearly a third out-migrating for education were also from the Eastern Hill region.

The most important reason for in-migration was agriculture in the Tarai and trade in the Mountain and Hill regions (Table 25 and Figure 5). Education was the least significant reason for in-migration in most regions. Agriculture was a significant reason for in-migration in all Tarai regions, particularly in the Far Western Tarai; it was ranked very low in the Mountain regions. In-migration for trade ranked high in all Hill regions. Trade was the most important reason for in-migration in the Midwestern Mountain region while it was less important in the Eastern Mountain region. In-migration for marriage ranked high in the Eastern Hill and low in the Western Mountain regions. Service as a reason for in-migration was proportionately higher at lower elevations: 2.7 percent in the Mountain zone, 4.3 percent in the Hill, and 5.4 percent in the Tarai.

Among in-migrants for agriculture, the Tarai claimed 95.2 percent (Table 25). The Eastern and Central Tarai together had 62.1 percent of such migrants. In the Mountain regions the share was only 0.5 percent. Half of the in-migrants for trade were recorded in the Hill region and another 42.5 percent in the Tarai. The Eastern Tarai and the Central and Western Hill regions had considerable numbers in-migrating for trade, but few in the Eastern and Western Mountain regions. Three-quarters of the in-migrants migrating for marriage were in the Tarai. The percentage of these in-migrants was high in the Eastern and Central Tarai and very low in the Western Mountain region. Among those in-migrating for education, 88.2 percent were in the Tarai. In-migrants for military service were also mostly in the Tarai.

In terms of net migration, the Tarai gained 281,621 persons for agricultural reasons (Table 26). The Eastern Tarai alone had 39.3 percent of this gain. Of the net loss from the highlands for agricultural reasons, 29.9 percent were from the Eastern Hill region. All Hill regions except the East gained in net migration among those with trade and commerce as the main reasons for migration. The Mountain regions had a net loss of 92,140 through out-migration for trade. The Tarai had a net gain of 58 percent from such migration. The Tarai gained in net migration for marriage, military service, and education. Among the highland regions, only the Midwestern Mountain region had a marginal net gain in the service category. That nearly 30 percent of all interregional migrants moved for agricultural reasons means that rural-to-rural migration is a significant factor in population redistribution in Nepal.

FACTORS INFLUENCING MIGRATION

Migration research, including that related to less developed countries (LDCs), has continued to focus on rural-urban movement. Present-day theories emphasize the pull of the urban sector (Lee 1969; Todaro 1976; Goldscheider 1983). For the urban pull to be operative, however, the population in the hinterland must be conducive to dislocation. In fact, the stimulus for migration in the LDCs lies in the rural condition. In other words, the accretion of unemployed migrants in urban areas in the LDCs is indicative less of urban dynamism than of strong repulsive forces operating in rural areas. For a vast majority of the rural population, underemployment and unemployment, indebtedness and landlessness, are stark realities. Out-migration from rural areas is, therefore, primarily due to the growth of the local population beyond the carrying capacity of the land (Zelinsky et al. 1970; Ng 1975). Excessive pressure on land resources and increasing poverty generate a large volume of migration (Kosinski and Prothero 1975; Zelinsky 1983).

In studies relating to intrarural migration, as well, there has been much emphasis on movements stimulated by colonization projects (Farmer 1957, 1974; Wikkramatileke 1965; Dozier 1969; Abeysekera 1984), but the magnitude of migration to new frontier lands through spontaneous movement

Table 24. Reasons for interregional out-migration by census region: 1981

	Agriculture		Trade & commerce		Marital relation		Study/ training		Service		Others/ unstated		Total	
Census region	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mountain	58,859	18.9	103,736	68.7	22,765	18.8	7,397	24.8	7,041	16.5	115,297	30.1	315,095	30.3
Far West	7,243	2.3	789	0.5	2,193	1.8	200	0.7	331	0.8	2,485	0.6	13,241	1.3
Midwest	1,565	0.5	563	0.4	980	0.8	91	0.3	128	0.3	2,585	0.7	5,912	0.6
West	11,299	3.6	2,519	1.7	6,639	5.5	1,626	5.4	1,944	4.6	14,192	3.7	38,219	3.7
Central	5,771	1.9	1,593	1.1	3,853	3.2	555	1.9	1,992	4.7	7,972	2.1	21,736	2.1
East	32,981	10.6	98,272	65.0	9,100	7.5	4,925	16.5	2,646	6.2	88,063	23.0	235,987	22.7
Hill	237,733	76.5	36,733	24.3	80,065	66.2	20,232	67.7	30,329	71.2	231,546	60.4	636,638	61.3
Far West	24,619	7.9	2,009	1.3	6,660	5.5	1,398	4.7	1,510	3.5	11,175	2.9	47,371	4.6
Midwest	24,434	7.9	3,333	2.2	7,353	6.1	1,086	3.6	1,516	3.6	16,806	4.4	54,528	5.2
West	59,969	19.3	6,546	4.3	16,622	13.7	5,230	17.5	6,861	16.1	54,876	14.3	150,104	14.4
Central	35,968	11.6	7,228	4.8	18,131	15.0	2,927	9.8	7,908	18.6	47,113	12.3	119,275	11.5
East	92,743	29.8	17,617	11.7	31,299	25.9	9,591	32.1	12,534	29.4	101,576	26.5	265,360	25.5
Tarai	14,293	4.6	10,606	7.0	18,085	15.0	2,239	7.5	5,246	12.3	36,660	9.6	87,129	8.4
Far West	177	0.1	95	0.1	188	0.2	53	0.2	56	0.1	642	0.2	1,211	0.1
Midwest	5,584	1.8	590	0.4	1,691	1.4	188	0.6	629	1.5	4,556	1.2	13,238	1.3
West	453	0.1	1,031	0.7	741	0.6	215	0.7	425	1.0	1,807	0.5	4,672	0.4
Central	2,596	0.8	3,286	2.2	6,379	5.3	868	2.9	2,086	4.9	13,838	3.6	29,053	2.8
East	5,483	1.8	5,604	3.7	9,086	7.5	915	3.1	2,050	4.8	15,817	4.1	38,955	3.7
Total	310,885	100.0	151,075	100.0	120,915	100.0	29,868	100.0	42,616	100.0	383,503	100.0	1,038,862	100.0
Row %		29.9		14.5		11.6		2.9		4.1		36.9		100.0

Source: Nepal, CBS (1984: vol. II, table 9).

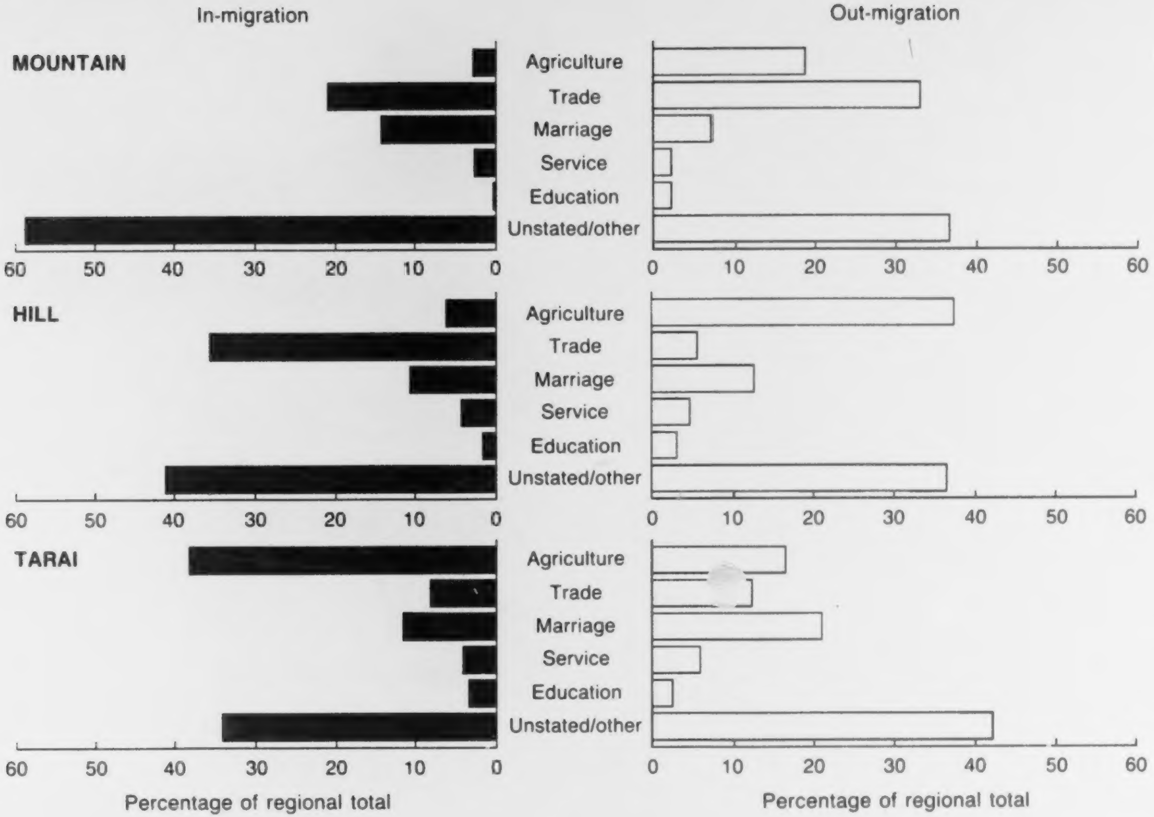


Figure 5. Reasons for interregional migration: 1981
Source: Tables 24 and 25.

Table 25. Reasons for interregional in-migration by census region: 1981

	Agriculture		Trade & commerce		Marital relation		Study/ training		Service		Others/ unstated		Total	
Census region	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mountain	1,518	0.5	11,326	7.5	7,668	6.3	162	0.5	1,426	3.3	31,528	8.2	53,628	5.2
Far West	183	0.1	3,148	2.1	1,150	1.0	17	0.1	58	0.1	6,330	1.7	10,886	1.1
Midwest	145	0.0	3,538	2.3	978	0.8	18	0.1	233	0.5	2,418	0.6	7,330	0.7
West	69	0.0	161	0.1	30	0.0	4	0.0	269	0.6	547	0.1	1,080	0.1
Central	722	0.2	3,861	2.6	1,699	1.4	35	0.1	175	0.4	3,933	1.0	10,425	1.0
East	399	0.1	618	0.4	3,811	3.2	88	0.3	691	1.6	18,300	4.8	23,907	2.3
Hill	13,453	4.3	75,558	50.0	22,921	19.0	3,377	11.3	9,081	21.3	87,537	22.8	211,927	20.4
Far West	985	0.3	5,773	3.8	1,298	1.1	28	0.1	509	1.2	5,966	1.6	14,559	1.4
Midwest	1,840	0.6	11,225	7.4	2,234	1.8	131	0.4	426	1.0	15,644	4.1	31,500	3.0
West	2,290	0.7	23,834	15.8	5,150	4.3	414	1.4	1,098	2.6	29,786	7.8	62,572	6.0
Central	5,683	1.8	24,672	16.3	7,931	6.7	2,533	8.5	5,975	14.0	25,079	6.5	71,873	6.9
East	2,655	0.9	10,054	6.7	6,308	5.2	271	0.9	1,073	2.5	11,062	2.9	31,423	3.0
Tarai	295,914	95.2	64,191	42.5	90,326	74.7	26,329	88.2	32,109	75.3	264,438	69.0	773,307	74.4
Far West	47,831	15.4	6,853	4.5	9,397	7.8	1,960	6.6	2,906	6.8	23,253	6.1	92,200	8.9
Midwest	20,262	6.5	6,984	4.6	5,660	4.7	1,662	5.6	1,380	3.2	18,416	4.8	54,364	5.2
West	34,844	11.2	9,486	6.3	12,448	10.3	4,031	13.5	4,119	9.7	46,507	12.1	111,435	10.7
Central	76,855	24.7	16,766	11.1	28,299	23.4	5,767	19.3	7,530	17.7	79,256	20.7	214,473	20.6
East	116,122	37.4	24,102	16.0	34,522	28.6	12,909	43.2	16,174	38.0	97,006	25.3	300,835	29.0
Total	310,885	100.0	151,075	100.0	120,915	100.0	29,868	100.0	42,616	100.0	383,503	100.0	1,038,862	100.0

Source: Same as Table 24.

Table 26. Reasons for net migration: 1981

Census region	Agriculture	Trade & commerce	Marital relation	Study/ training	Service	Others/ unstated	Total
Mountain	-57,341	-92,410	-15,097	-7,235	-5,615	-83,769	-261,467
Far West	-7,060	2,359	-1,043	-183	-273	3,845	-2,355
Midwest	-1,420	2,975	-2	-73	105	-167	1,418
West	-11,230	-2,358	-6,609	-1,622	-1,675	-13,645	-37,139
Central	-5,049	2,268	-2,154	-520	-1,817	-4,039	-11,311
East	-32,582	-97,654	-5,289	-4,837	-1,955	-69,763	-212,080
Hill	-224,280	38,825	-57,144	-16,855	-21,248	-144,009	-424,711
Far West	-23,634	3,764	-5,362	-1,370	-1,001	-5,209	-32,812
Midwest	-22,594	7,892	-5,119	-955	-1,090	-1,162	-23,028
West	-57,679	17,288	-11,472	-4,816	-5,763	-25,090	-87,532
Central	-30,285	17,444	-10,200	-394	-1,933	-22,034	-47,402
East	-90,088	-7,563	-24,991	-9,320	-11,461	-90,514	-233,937
Tarai	281,621	53,585	72,241	24,090	26,863	227,778	686,178
Far West	47,654	6,758	9,209	1,907	2,850	22,611	90,989
Midwest	14,678	6,394	3,969	1,474	751	13,860	41,126
West	34,391	8,455	11,707	3,816	3,694	44,700	106,763
Central	74,259	13,480	21,920	4,899	5,444	65,418	185,420
East	110,639	18,498	25,436	11,994	14,124	81,189	261,880

Source: Tables 24 and 25.

has always been considerably larger than that induced by resettlement schemes (Ng 1975; Martine 1975; Bucksmann 1980). A slow pace of economic development means slow growth of secondary and tertiary activities and increasing pressure on primary resources such as land (Grigg 1980a). Moreover, for the rural population who are mostly illiterate and unskilled, a move to frontier lands rather than to the limited urban space is a logical search for livelihood.

Nepal ranks fourth from the bottom among 39 low-income countries of the world in basic indicators (World Bank 1988:222). Not only does it have one of the lowest per capita GNPs (US $150 for 1986), but the estimate of average annual growth rate of GDP (2.4 percent) was the same as that of the population (2.4 percent) during 1965–80 (World Bank 1988:224, 274). Whatever the reasons for Nepal's economic underdevelopment, rapid population growth has increased the number of those on the move for livelihood.

The Nepalese situation raises another issue about migration that refers to the extent of poverty and migration potential. Similar to Myrdal (1968:2, 140) and Goldstein (1976:433), Goldscheider (1983:64–65) concluded that the poorer the people, the stronger the impediments to moving. This observation may be true for rural-urban movement. In the case of Nepal, however, dominated by rural-rural movement, all surveys indicate a higher mobility among the most deprived. This pattern may be related to the low cost of moving, since the majority are directed to frontier land. The extent of those surveyed who had migrated due to inadequate land and poor livelihood conditions at origin ranged from 39.2 percent (Nepal, TFM, 1983: table 13.9) to 43.6 percent (Nepal, NPC, 1983:76) and 68.2 percent (Conway and Shrestha 1981:156; K. C. 1985). In other words, migrants in Nepal are mainly of the "subsistence" category rather than the "betterment" ones (White and Woods 1980:31). Pushed by poverty, migrants are moving to other regions inside the country as well as abroad.

The forces that influence migration in Nepal may be categorized as follows: economic dislocation, population pressure, malaria control, land settlement, and regional disparity. Economic dislocation as a cause of out-migration is more pronounced in the mountains; population pressure is a significant reason for out-migration from the Hill and Mountain regions; the last three are positive factors that encourage in-migration into Inner Tarai and the Tarai. In the following sections we shall examine these factors one by one.

Economic Dislocation

The Mountain regions have been the source of an increasing number of out-migrants in recent decades. Of the total interregional migrants, those from Mountain regions comprised 9.8 percent in 1971 and 30.3 percent in 1981 (Tables 16 and 19). The mountain economy, dependent primarily on trade and pastoralism, was affected by various problems in the last three decades. First of all, trade across the border was closed for some years due to political upheaval in Tibet in 1959. When trade was resumed, the mountain traders accustomed to the traditional barter system had trouble adjusting to the new state trading system of cash transactions conducted only at designated localities.

Another reason for the decline in the border trade between Nepal and Tibet was the decline in the foodgrain supply from the hills, which had a premium value in exchange for Tibetan commodities. With an increasing food deficit in the hills, the mountain traders could acquire less foodgrain and their trade leverage suffered. Furthermore, the extension of roads into the hills and the transportation of iodized salt from India by modern means further reduced the market for Tibetan salt, the principal trade item of the mountain traders (Furer-Haimendorf 1975). These developments led to the dislocation of the commodity base and consequently border trade declined.

The mountain economy had another setback. Traditionally, Nepalese herders wintered their animals in Tibetan pastures. The restriction on herd movement for pasture after the Sino-Nepal boundary alignment and agreement in 1961 (Nepal, Foreign Ministry, 1961) led to a decline of pastoralism and further aggravated the economy of the mountain people. Since agriculture is only a marginal activity in this harsh environment, the only alternative to the deteriorating economy was out-migration. Indeed, large-scale out-migration depopulated some of these districts. Thus population growth rates in mountain districts during 1971–81 were not only very low (averaging 1.1 percent) but four districts registered an absolute decline (Appendix Table 2). With increasing economic depression, more and more mountain people were forced to seek their livelihood outside the region (Dahal et al. 1977).

Population Pressure

In-migrants to the southern lowlands (Inner Tarai and Tarai) have two main source areas. One is the highlands (Hill and Mountain) within the country; the other is the high-density area of the Gangetic plain across the border in India. The first contributes to interregional migration and the latter to immigration.

Internal

The origins of Nepalese migration lie in the Hill regions that historically were settled first. By the last decade of the eighteenth century, Nepal had enough manpower to support its territorial expansion from the Tista in the east to the Sutlej in the western Himalaya until contained by the East India Company in 1816 (Stiller 1973). Most of the population was concentrated in the hills. One source estimated that Nepal in 1750 had a population of 3 million (Poffenberger 1980:26–28). The growth curve rose sharply by 1940, yielding a population of 8.4 million in 1952/54, an increase of 2.8 times during 1750–1954. (According to Davis 1968, the population of undivided India increased fourfold during the period 1750–1950 from 150 million to 600 million.) Another intensive study on population and resources surmised that the population of one Central Hill district (Kaski) increased by 5.2 times during 1820–1961 (Macfarlane 1976). In the Eastern Hill region, where migrants from the west displaced the tribals, available land had begun to disappear as early as the end of the nineteenth century (Caplan 1970:7–8). Thus the hill economy since the mid-nineteenth century has been partly sustained by seasonal, circular, and permanent migration. In the Eastern Hills, seasonal, circular (army service), and permanent migration are all pronounced (Caplan 1970). In the Central Hills, migration for army service is more prominent than seasonal migration (Macfarlane 1976). In the Western Hills, where the mercenary tradition is not strong, a survey showed that almost a third of surveyed households maintained themselves by migrating seasonally (McDougal 1968).

By applying the Sen Gupta model (Sen Gupta 1970:424–41) for deriving a population pressure index based on the relationship between population and available resources at the district level, we can obtain one measure of population pressure in Nepal (Shrestha 1982). The resultant population pressure index (PPI) was categorized into positive values to indicate overpopulation and negative values for underpopulation. According to the PPI derived from the data for the 1961–71 decade, 47 of the country's 75 districts were overpopulated (Map 4). Grouping the districts by geographic region reveals that 11 of 15 Mountain districts and 34 of 36 Hill districts were overpopulated. All 18 Tarai districts and four of six Inner Tarai districts were underpopulated.

When the districts are regrouped according to the 1981 census regions, the PPI value of regions and their rate of out-migration show a close relationship (Table 27). Hill regions rank high both in PPI and out-migration rate, while the converse holds true for the Tarai regions. The Western Mountain region appears as an exception to this basic pattern with negative PPI but with the highest out-migration rate; the discrepancy is due to the boundary adjustment in 1975. Although regions of overpopulation were the primary source of out-migration, there is an inverse relationship between PPI and rate of net migration (Table 27). Mountain and Hill regions with high population pressure have negative rates of net migration. The Midwestern Mountain region is an exception with a positive rate of net migration. The five Tarai regions with negative PPI or underpopulation have the highest rates of net migration.

The population absent from home at the time of census provides another measure of migration. Of all those absent from home for six months or more, 98.4 percent in 1952/54 and 86 percent in 1981 were from the Mountain and Hill regions (Table 17). The number of absentees from the highland regions increased by 78.8 percent during 1952/54–1981. The increase

Table 27. Population pressure index and net migration rate by census region

	Population pressure index[a]		Rate of outmigration[b]		Rate of net migration[c]	
Region	1971	Rank	1981	Rank	1981	Rank
Mountain	28	B	241.8	A	-200.7	B
Far West	35	7	45.8	9	-8.2	7
Midwest	15	9	24.4	10	5.8	6
West	-8	10	1,915.6	1	-1,861.5	15
Central	55	5	52.6	8	-27.4	10
East	28	8	697.3	2	-626.6	14
Hill	115	A	88.9	B	-59.3	A
Far West	97	3	78.4	4	-54.3	12
Midwest	84	4	52.3	7	-22.1	8
West	139	2	69.8	5	-40.7	11
Central[d]	190	1	56.6	6	-22.5	9
East	51	6	211.1	3	-186.1	13
Tarai	-212	C	13.3	C	104.7	C
Far West	-119	11	2.8	15	213.2	1
Midwest	-187	12	19.3	11	61.3	5
West	-268	15	4.9	14	111.4	3
Central	-189	13	12.2	13	77.7	4
East	-263	14	18.4	12	123.9	2

a. After Shrestha (1982).

b. $m_O = \frac{O}{P}k$, where O is outmigration, P is population, and k is constant.

c. $m_N = \frac{I-O}{P}k$, where N is net migration and I is in-migration.

d. Including Kathmandu Valley.

was 73.2 percent for absentees within the country and 83.5 percent for absentees outside the country. The 1971 census does not include data on absentee population, but the 1981 census shows that half of the total absentees abroad came from the Central Hill region, which includes four districts with extremely high PPI. There is a close convergence in pattern of PPI for 1971 and percentage of population abroad by districts for 1981 (Maps 1 and 4). Particularly striking is the correspondence of three contiguous districts (Baglung, Gulmi, and Syangja) in the Central Hill region with the highest PPI and highest percentage of absentees. The Tarai and Inner Tarai districts with low PPI have a lower percentage of absentee population out of the district total.

Pressure of population on cultivated land was an important factor influencing migration. All highland regions except the Central Mountain exceeded the national average in persons per net cultivated hectare (Table 5).

All lowland regions except the Central Tarai had lower than national average population pressure on such land. Nine Hill districts had a high density exceeding 7.7 persons per net cultivated hectare (Map 5). Of these, four in the Central Hill region make a compact bloc, corresponding to the area of very high PPI (Map 4) and high percentage of absentees outside the country (Map 1). Western Mountain and Western Tarai districts have very low population pressure on net cultivated land. Kathmandu Valley had a high density of population per net cultivated hectare but a low percentage of absentees outside the country. The discrepancy might be explained by the sizable urban population of the three districts. Of the 24 Tarai and Inner Tarai districts, 18 had fewer persons per net cultivated hectare than the national average. Of the 51 Hill and Mountain districts, 28 exceeded the national average in persons per net cultivated hectare.

External

The international boundary between Nepal and India is not regulated regarding human movement.[10] Neither is there any physical restriction, as two-thirds of the boundary traverses a level plain. International migration across this boundary is primarily an outward expansion of population into similar ecological niches: Nepalese eastward to subtropical hills and Indians northward into the tropical Tarai. While the Nepalese migration in the eastern Himalaya represents the frontal wave of west-to-east hill migration, the colonization of the Nepal Tarai was based on the northward push of yeoman farmers from across the Indian border.

The Nepalese hills must have been fairly overpopulated even during the last century, as emigration to India was substantial. The number of those speaking languages of Nepalese origin in India increased by 64.6 percent during 1891–1921 (Davis 1968). Of these, 60.4 percent were concentrated in Bengal and Sikkim. Nepalese-language speakers in India in 1921 constituted 13.1 percent of Nepal's total Mountain/Hill population for 1920. Of the 526,526 Nepal-born population in India in 1971, some 42.4 percent were in the northeastern states and another 39.1 percent in the bordering states of Bihar and Uttar Pradesh (Table 8). The increase of absentees reported in India was 91.6 percent during 1952/54–1961 compared to 24.2 percent during 1971–81, indicating increasing internal mobility (Table 7).

Indian immigration into Nepal through expansion is evidenced by the high concentration of people of Indian origin in the adjoining Tarai regions, particularly in the Eastern Tarai (Table 11). The principal reason for the movement seems to be the comparatively low density of population in the Tarai

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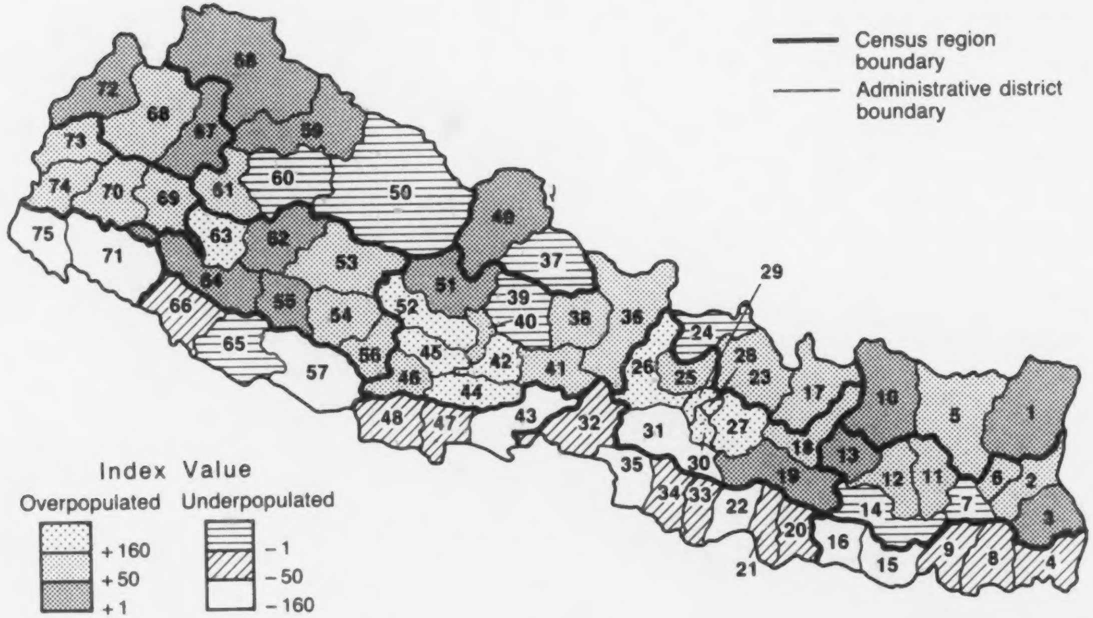
[10] Article VII of the Treaty of Peace and Friendship between Nepal and India signed on 31 July 1950 states: "The Governments of India and Nepal agree to grant, on a reciprocal basis, to the nationals of one country in the territories of the other the same privileges in the matter of residence, ownership of property, participation in trade and commerce movement and privileges of similar nature."


Census region boundary
Administrative district boundary
Index Value
Overpopulated
Underpopulated
+160
+50
+1
−1
−50
−160
1
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3
4
5
6
7
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9
10
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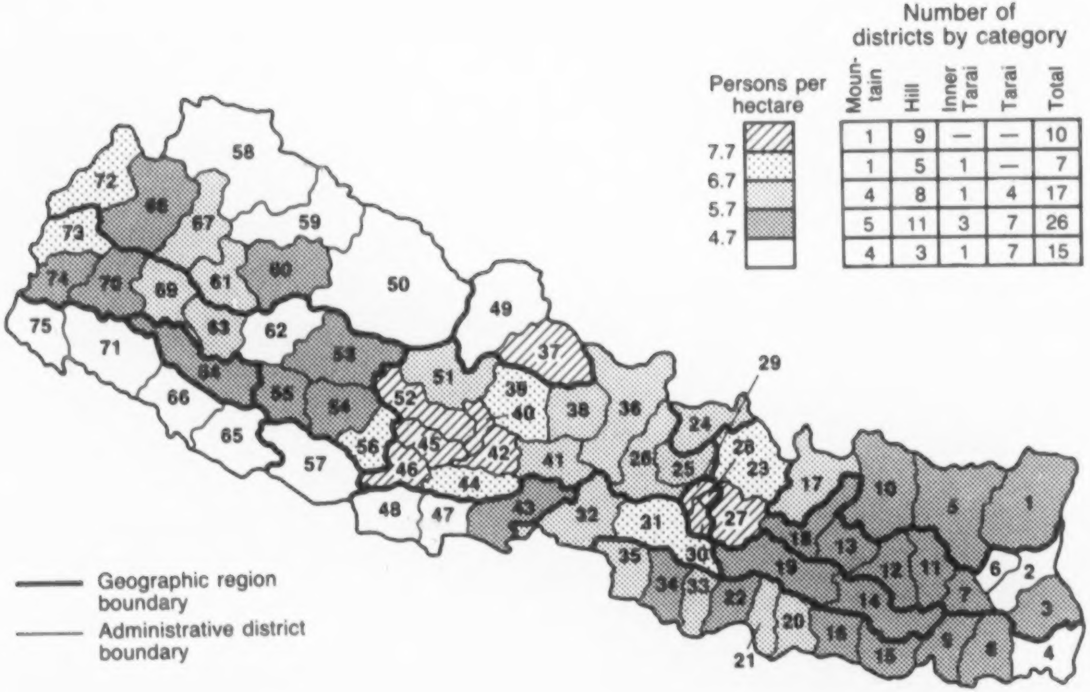
1	Taplejung
2	Panchthar
3	Ilam
4	Jhapa
5	Sankhuwa Sabha
6	Terhathum
7	Dhankuta
8	Morang
9	Sunsari
10	Solu-Khumbu
11	Bhojpur
12	Khotang
13	Okhaldhunga
14	Udayapur
15	Saptari
16	Siraha
17	Dolakha
18	Ramechhap
19	Sindhuli
20	Dhanusa
21	Mahotari
22	Sarlahi
23	Sindhu-palchok
24	Rasuwa
25	Nuwakot
26	Dhading
27	Kabhre-palanchok
28	Bhaktapur
29	Kathmandu
30	Lalitpur
31	Makwanpur
32	Chitawan
33	Rautahat
34	Bara
35	Parsa
36	Gorkha
37	Manang
38	Lamjung
39	Kaski
40	Parbat
41	Tanahun
42	Syangja
43	Nawal Parasi
44	Palpa
45	Gulmi
46	Argha Khanchi
47	Rupandehi
48	Kapilvastu
49	Mustang
50	Dolpo
51	Myagdi
52	Baglung
53	Rukum
54	Rolpa
55	Salyan
56	Pyuthan
57	Dang-Deokhuri
58	Humla
59	Mugu
60	Jumla
61	Kalikot
62	Jajarkot
63	Dailekh
64	Surkhet
65	Banke
66	Bardiya
67	Bajura
68	Bajhang
69	Achham
70	Doti
71	Kailali
72	Darchula
73	Baitadi
74	Dadeldhura
75	Kanchanpur

Map 4. Population pressure index by district: 1971

Source: Shrestha (1982: table 2).

Note: See Table 27 for population pressure index by census region.


Persons per hectare
7.7
6.7
5.7
4.7
Geographic region boundary
Administrative district boundary
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

Number of districts by category

Persons per hectare	Mountain	Hill	Inner Tarai	Tarai	Total
▨	1	9	—	—	10
░	1	5	1	—	7
▒	4	8	1	4	17
▓	5	11	3	7	26
□	4	3	1	7	15

1	Taplejung (5.4)
2	Panchthar (4.6)
3	Ilam (4.9)
4	Jhapa (4.4)
5	Sankhuwa Sabha (5.0)
6	Terhathum (4.3)
7	Dhankuta (4.8)
8	Morang (5.2)
9	Sunsari (4.8)
10	Solu-Khumbu (5.0)
11	Bhojpur (5.6)
12	Khotang (5.6)
13	Okhaldhunga (5.7)
14	Udayapur (5.2)
15	Saptari (4.9)
16	Siraha (4.8)
17	Dolakha (6.3)
18	Ramechhap (5.0)
19	Sindhuli (5.3)
20	Dhanusa (5.9)
21	Mahotari (6.0)
22	Sarlahi (5.4)
23	Sindhu-palchok (6.9)
24	Rasuwa (5.8)
25	Nuwakot (6.3)
26	Dhading (6.7)
27	Kabhre-palanchok (10.3)
28	Bhaktapur (22.1)
29	Kathmandu (24.7)
30	Lalitpur (16.7)
31	Makwanpur (6.8)
32	Chitawan (5.8)
33	Rautahat (5.9)
34	Bara (5.3)
35	Parsa (5.9)
36	Gorkha (6.7)
37	Manang (9.8)
38	Lamjung (6.4)
39	Kaski (7.0)
40	Parbat (8.4)
41	Tanahun (8.6)
42	Syangja (8.7)
43	Nawal Parasi (5.4)
44	Palpa (7.1)
45	Gulmi (9.3)
46	Argha Khanchi (7.9)
47	Rupandehi (4.3)
48	Kapilvastu (3.2)
49	Mustang (3.0)
50	Dolpo (4.4)
51	Myagdi (6.2)
52	Baglung (8.0)
53	Rukum (5.6)
54	Rolpa (5.7)
55	Salyan (5.4)
56	Pyuthan (6.8)
57	Dang-Deokhuri (4.1)
58	Humla (4.0)
59	Mugu (4.5)
60	Jumla (5.4)
61	Kalikot (6.7)
62	Jajarkot (4.7)
63	Dailekh (5.8)
64	Surkhet (5.3)
65	Banke (4.1)
66	Bardiya (3.7)
67	Bajura (6.1)
68	Bajhang (5.5)
69	Achham (5.8)
70	Doti (5.6)
71	Kailali (3.9)
72	Darchula (6.8)
73	Baitadi (7.0)
74	Dadeldhura (5.4)
75	Kanchanpur (4.1)

Map 5. Persons per net cultivated hectare by district: 1978/79

Source: Based on Kenting Earth Sciences (1986a: app. 5).

Note: Density values are in parentheses next to the name of each district. See Table 5 for density per net cultivated hectare by geographic region.

compared to the adjoining Indian districts. On average, the density in Bihar districts in 1961 was two to three times higher than in the Eastern Tarai districts of Nepal (Gaige 1975). The disparity was even greater in the west: The density of adjoining Uttar Pradesh districts was three to four times higher than in Central and Western Tarai districts of Nepal. Where two adjoining areas with similar environments have differences in population density with no restriction on mobility, the movement to low-density areas becomes a natural process.

Not only were there disparities in density along the border, but there was overpopulation in the Indian states adjoining Nepal. Measurement of pressure of rural population on land resources in India indicates that Bihar and Uttar Pradesh contiguous to Nepal had the highest level of overpopulation (Sen Gupta 1970:425–26 and fig. 25-1). And categorization of regions based on population density and growth rate, resource potential, and levels of socioeconomic development reveals that eastern Uttar Pradesh and northern Bihar adjoining Nepal are problematic regions of the first order: "They face the problem of bitter poverty due to overcrowding; their density of population [is] almost three-to-fourfold that of the country as a whole" (Sen Gupta 1970:427–33).[11] These regions, therefore, had a high rate of outmigration, mostly (73 percent) rural to rural. Together they recorded a net loss from rural communities of 3 million or 2.7 percent during 1951–61. Given the similarity of natural and cultural environment between the Tarai and parts of these states, it is reasonable to assume that a sizable proportion of this migration was directed to Nepal. Since the international border is no barrier to human movement, the demographic processes operating in the middle Ganges plain have affected the Tarai as their obvious extension. According to a survey in 1983 in the Tarai, 6.9 percent of the householders were immigrants and of these 94.3 percent came from India (Nepal, TFM, 1983). Among these immigrants, 48.9 percent came for work/employment, 19.4 percent for trade/commerce, 12.0 percent because they had relatives at the destination, and 10.6 percent because of poverty at the origin. Of all the immigrants, 97.2 percent found their new situation better than at their place of origin.

The reasons for migration cited by those reported away from home and living in India and those of the India-born population reported in Nepal suggest the factors of mobility across the border. Although reporting by place of birth and reporting by absentees abroad are not strictly comparable, Nepalese reported in India were 1.7 times more than Indians reported in Nepal (Table 28). Of the 375,196 Nepalese in India, 82.1 percent were male; of the 222,278 India-born in Nepal, 70.6 percent were female. Among India-born females reported in Nepal, marital relation was given as the reason for migration by 62.2 percent; of the Nepalese women reported in India, by contrast, only 4.7 percent were there for marital reasons. Two-thirds of the Nepalese reported in India were there for service and of these 67.3 percent were male. Of the India-born reported in Nepal, only 5 percent gave service as the reason. Other important reasons for India-born being in Nepal were for trade and agriculture; both of these reasons were less important for Nepalese reported in India.

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[11] Uttar Pradesh and Bihar adjoining Nepal recorded the lowest annual income per person for 1983–84 (less than Rs. 1,600) among all Indian states and territories. See *The Economist* (London), 9 May 1987.

Food scarcity

Population pressure on available land is also evidenced by increasing food scarcity, particularly in the highlands. One of the early estimates of the country's food balance was made for the fiscal year 1970–71 based on rough calculations of cultivated area, cereal grain output, and population (Nepal, FAM, 1972:78–79). Analysts assumed a 10 percent loss of gross production due to pests, birds, and animals, a 4 percent loss in dehusking, and a 3 percent loss in milling. The requirement of edible foodgrain per head per annum was assumed to be 140 kilograms in the Mountain region, 160 kilograms in the Hill region, and 190 kilograms in the Tarai. According to the estimate, the Hill and Mountain regions had a foodgrain deficit of 127,753 metric tons and 15,473 metric tons respectively. The Tarai had a surplus of 345,223 metric tons and the Inner Tarai a surplus of 72,872 metric tons. The country had a food surplus of 274,869 metric tons even though 34 of the 75 districts had a deficit. Among the foodgrain deficit districts, 26 were Hill, seven Mountain, and one Inner Tarai (Gurung 1984c: fig. 11). Of the 36 Hill districts, only 10 had a surplus. On the other hand, all Tarai districts had a surplus.

The problem was further aggravated by a decline in foodgrain production in the highlands. During 1970/71–1980/81, estimated foodgrain production declined by 11.3 percent in the Mountain region and by 5.7 percent in the Hill region (Table 29). For the country, the increase in foodgrain production was 9.9 percent compared to 14.6 percent in cropland expansion (Table 29). In the lowlands, there was an 18.3 percent increase in foodgrain production compared to a cropland increase of 16 percent. Thus the per capita foodgrain availability of the total population declined from 302 to 255 kilograms. Declines in per capita food availability ranged from 180 to 147 kilograms for the highlands and from 466 to 371 kilograms for the lowlands (Table 29).

The balance between food production and population has deteriorated in the highlands as indicated by estimates based on cropped area, physical output, and population. In 1974–75, the country had a foodgrain surplus of 540,000 metric tons (Table 30). The Mountain and Hill regions had a deficit of 69,000 metric tons while the Tarai had a surplus of 609,000 metric tons. All the Tarai districts were in the food surplus category whereas a majority of Hill districts had a chronic food deficit. By 1983–84, the surplus for the

Table 30. Change in food balance by elevation zone: 1974-75 to 1983-84

Zone	1974-75[a] (1,000 MT)	1983-84[b] (1,000 MT)
Mountain	-15	-74
Production	131	110
Requirement	146	184
Hill	-54	-211
Production	870	910
Requirement	924	1,121
Tarai	609	530
Production	1,410	1,724
Requirement	801	1,194
Total	540	245
Production	2,411	2,744
Requirement	1,871	2,499

a. Nepal, FAM (1983: table 11.2).

b. Joshi and Khatiwada (1986: table 32).

country had been reduced to 245,000 metric tons (Joshi and Khatiwada 1986:159). The surplus in the Tarai decreased to 530,000 metric tons while the deficit in the highlands increased to 285,000 metric tons or four times that of 1974-75.

The Tarai and Inner Tarai regions rank high in per capita foodgrain availability (Table 29). They are also the very regions with a low percentage of absentee population and low rates of out-migration. On the other hand, Mountain and Hill regions have a low level of foodgrain availability and a high rate of out-migration. The production and availability of foodgrain, therefore, appears to be an important influence on interregional migration: People from food-deficit highlands are moving to the source of food production in the lowlands. In other words, the highlands with their excess population and limited agricultural land are the source while the lowlands with more land are the destination of most migrants in Nepal.

Survey findings and econometric exercises all indicate that land availability is the primary determinant of migration in Nepal. A multiple-regression analysis using land at origin and destination (including other independent variables) showed that the effect of land available at destination was always positive and highly significant (Dixon 1977:137-47). Another set of regressions led to three conclusions: The more people in an area, the more the movements; the more land available, the less out-migration; and the more land available, the more in-migration (Dixon 1977:154-58). Another econometric modeling to explain the determinants of internal migration found that the level of agricultural income per household in a district and net migration were positively correlated (Conway and Shrestha 1981:102–07).

Malaria Control

Until the middle of the twentieth century, the lowland regions of Nepal constituted a hyperendemic malarial zone. The traditional Nepalese term for malaria, known as *awal*, conformed closely to its Latin *mala aria* meaning "bad night air." Although the hill people traversed the lowlands during the winter season when the *Anopheles fluviatilis* vector was dormant, they generally avoided the region. Even within the hills, the fear of malaria imposed a commuting work schedule whereby the people retreated to upland settlements at dusk after working in the valley fields. Some of the earlier settlements of hill people in the lowlands were penal colonies and resettled by emancipated slaves (Regmi 1971).

The program of malaria control was first introduced in Nepal in 1955. This foreign-aided program was associated with a modern scheme of resettlement in Chitawan in the Central Inner Tarai. As in the dry zone of Sri Lanka where DDT spraying was started in 1945 (Farmer 1957:21), the campaign against malaria in Chitawan met with success and a large number of hill settlers began to pour in. The initial target was to resettle a population of 30,000 by reclaiming 20,240 hectares of grassland and forest land. The district subsequently recorded an average population growth rate of 6.8 percent per annum for the period 1952/54–1961, the highest for any district.

The success of the pilot project in Chitawan led to the establishment of the Nepal Malaria Eradication Organization (NMEO), and the program was expanded to cover other lowland regions. The first phase (1955–58) included Chitawan and Makwanpur districts of the Central Inner Tarai. The second phase began in 1959 and included six Eastern Tarai districts west of the Kamala River and three districts of Central Tarai (Map 1). The five Tarai districts east of the Kamala were covered in 1962, and the last phase in 1964 included Western Tarai and Inner Tarai (Table 31). Subsequently the NMEO extended its activities to other hill areas below 1,200 meters considered malarious.

The control and eradication of malaria in the lowlands provided new impetus to a large-scale spontaneous migration, particularly from the hills. According to the records of the NMEO, the population covered by the program in 13 Tarai districts increased by 48.3 percent during 1970–80 (Table 31). Districts with a later introduction of malaria control had a comparatively higher growth rate during this decade. The three districts between the Bagmati and Kamala rivers in Eastern Tarai, where the program was introduced in 1959, had only a 1.90 percent growth rate compared to the 4.02 percent average growth rate of all 13 Tarai districts. The Central Tarai, where the program was introduced in the same year, registered a growth

Table 31. Growth of population in the Tarai: 1970-80

Region	1970	1980	Change 1970-80 Number	Change 1970-80 %	Growth rate	Malaria eradication started
Western Tarai[a]	385,704	725,565	339,861	88.1	6.52	1964
Central Tarai[b]	605,171	908,874	303,703	50.2	4.15	1959
Eastern Tarai	1,525,853	2,097,092	571,239	37.4	3.23	1959 and 1962
Bagmati to Kamala rivers[c]	860,260	1,038,850	178,590	20.8	1.90	1959
East of Kosi river[d]	665,593	1,058,242	392,649	59.0	4.75	1962
Total	2,516,728	3,731,531	1,214,803	48.3	4.02	

Source: Nepal Malaria Eradication Organization, unpublished annual records.

Note: Malaria-related data for Parsa, Bara, Rautahat, Siraha, and Saptari districts are not available after 1974 where integrated health programs were introduced. See Map 1 for river boundary.

a. Includes Banke, Bardiya, Kailali, and Kanchanpur.

b. Includes Kapilvastu, Rupandehi, and Nawal Parasi.

c. Includes Sarlahi, Mahotari, and Dhanusa.

d. Includes Sunsari, Morang, and Jhapa.

rate of 4.15 percent. The growth rate was much higher in districts where the program was introduced later. It was 4.75 percent east of the Kosi River in Eastern Tarai (where eradication started in 1962) and 6.52 percent in Western Tarai (where the program was not launched until 1964).

Land Settlement

The control of malaria in the lowlands greatly facilitated government schemes for resettlement on new land. The first settlement scheme, in the Chitawan Valley, was initiated during the First Five Year Plan (1956-61), and its success led to the expansion of the resettlement program. A resettlement company was established in 1964 to carry out land development and implement resettlement projects (Elder et al. 1976; Kansakar 1979, 1983). The company operated five projects between 1964 and 1970 and settled 6,740 families on 14,268 hectares of new land cleared from the forest (Ojha 1983:30). During the decade 1970-80, five more projects were started that settled 11,746 families on 19,015 hectares (Nepal, NPC, 1975, 1980).

In 1969, a full-fledged Department of Resettlement was created to organize land settlement activities on a more extensive scale. During the period 1970-83, the number of households so settled was 50,859 on 33,733 hectares of land that were mostly reclaimed from the forest. The pattern of resettlement operation during the decade 1974-75 to 1982-83 shows three features (Table 32). First, there was a decline in the volume of land for settlement from 4,322 hectares of land resettled in 1974-75 to 1,011 hectares in 1982-83. Second, increasing demand for such land led to the decline of plot size allotted to settler households from 1 hectare in 1974-75 to 0.34 hectare per household in 1982-83. Third, the depletion of forest land for resettlement in the densely populated Eastern Tarai meant a shift in program emphasis to the Western Tarai.

The scale of official resettlement was modest considering the volume in neighboring countries,[12] planning targets, and the number of migrants moving to the lowlands. The progress achieved by the Department of Resettlement during 1964-80 was 22.4 percent for land distributed and 38.3 percent for families settled (targeted at 102,890 hectares and 35,500 families respectively). Resettlement schemes indeed seem to have acted as a catalyst to spontaneous migration. Official estimates indicate that from 1960-61 to 1970-71, some 78,160 hectares of new Tarai land had been settled by 32,175 legal as well as illegal settler families (Nepal, Department of Resettlement, 1973). Of the total land cleared during 1963-72, only 20,300 hectares were legally settled whereas three times more land had been illegally cleared (Ojha 1983:32). The Forest Resources Survey estimates a total loss of approximately 120,000 hectares of forest land during 1964-72; of this, 56,000 hectares were said to be encroached upon by illegal settlers through spontaneous migration. According to another estimate, annual flows of Hill migrants to the Tarai were on the order of 36,000 persons in 1974-75 and 48,000 in 1975-76 (World Bank 1979:21). The number legally settled in those years comes to about 64,000 or three-quarters of all settlers. Thus the volume of spontaneous migration to the lowlands was much greater than those handled by the resettlement schemes. In a recent survey taken in 10 Tarai districts, one-third of the migrants had been attracted by the presence of relatives and acquaintances—evidence of a migration chain (Nepal, TFM, 1983: table 13.13). Other significant reasons given for migrating to the Tarai were land distribution by the government (10.9 percent), more productive land (7.8 percent), cheaper land (7.1 percent), and scope for forest clearance (3.7 percent).

Regional Disparity

One of the basic factors inducing interregional migration in Nepal is the regional disparity in population and resources. The highlands have 51.4 percent of the total population while the lowlands have 56.4 percent of the total net cultivated land (Table 5). A national sample survey conducted in 1977 showed an average annual per capita income of Rs. 782 in the

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[12] According to Farmer (1974), India resettled about 93,000 colonists on 344,633 hectares of land during 1947-63; of these, 15,862 colonists on 47,455 hectares were settled in Bihar and Uttar Pradesh (Farmer 1974: tables 5.1 and 5.11). In Sri Lanka, 68,525 colonists had been settled on 128,823 hectares of land by 1966.

Table 28. Reasons for Indo-Nepal migration: 1981

	Nepalese absentees in India						India-born reported in Nepal					
	Male		Female		Total		Male		Female		Total	
Reasons	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Agriculture	11,378	3.7	2,292	3.4	13,670	3.6	14,977	22.9	6,711	4.3	21,688	9.7
Marital relations	345	0.1	3,174	4.7	3,519	0.9	2,645	4.1	97,722	62.2	100,367	45.2
Military service	241,189	78.3	8,248	12.3	249,437	66.5	9,830	15.1	1,188	0.8	11,018	5.0
Study/training	7,528	2.4	1,976	2.9	9,504	2.5	1,455	2.2	843	0.5	2,298	1.0
Trade/commerce	2,043	0.7	330	0.5	2,373	0.6	12,135	18.6	9,623	6.1	21,758	9.8
Others/unstated	45,463	14.8	51,230	76.2	96,693	25.8	24,243	37.1	40,906	26.1	65,149	29.3
Total	307,946	100.0	67,250	100.0	375,196	100.0	65,285	100.0	156,993	100.0	222,278	100.0
Percentage	82.1		17.9		100.0		29.4		70.6		100.0	

a. From Nepal, CBS (1984: vol. IV, table 2).

b. From Nepal, CBS (1984: vol. I, pt. II, table 10).

Table 29. Changes in estimated area under crops and foodgrain production

A. Area under crops[a]

	1970–71		1980–81		Change		Persons/hectare	
Macro region	Hectares	%	Hectares	%	Hectares	%	1970–71	1980–81
Nepal	2,161,159	100.0	2,447,548	100.0	316,389	14.6	5.3	6.1
Highlands	683,719	31.6	763,488	31.2	79,769	11.7	9.7	10.1
Mountain	104,505	4.8	101,000	4.1	-3,505	-3.4	9.2	10.6
Hill	579,214	26.8	662,488	27.1	83,274	14.4	9.8	10.1
Lowlands	1,477,440	68.4	1,714,060	70.0	236,620	16.0	3.3	4.3
Inner Tarai	232,080	10.7	290,220	11.9	58,140	25.1	3.9	4.4
Tarai	1,245,360	57.6	1,423,840	58.1	178,480	14.3	3.3	4.2

B. Foodgrain production[b]

	1970–71		1980–81		Change		Foodgrain availability (kg/person)	
Macro region	Metric tons	%	Metric tons	%	Metric tons	%	1970–71	1980–81
Nepal	3,486,157	100.0	3,829,886	100.0	343,729	9.9	302	255
Highlands	1,191,241	34.2	1,115,808	29.1	-75,433	-6.3	180	147
Mountain	144,764	4.2	128,588	3.4	-16,176	-11.3	151	120
Hill	1,046,477	30.0	987,220	25.8	-59,257	-5.7	184	149
Lowlands	2,294,916	65.8	2,714,078	70.9	419,162	18.3	466	371
Inner Tarai	352,817	10.1	418,188	10.9	65,371	18.5	388	327
Tarai	1,942,099	55.7	2,295,890	59.9	353,791	18.2	496	381

Source: Nepal, FAM (1983:97–246).

a. Crops include six food crops (paddy, maize, wheat, millet, barley, potato) and three cash crops (sugarcane, oilseeds, tobacco).

b. Foodgrain includes paddy, maize, wheat, millet, and barley.

Table 32. Land and households resettled in the Inner Tarai and Tarai: 1974–75 to 1982–83

Fiscal year	West	%	Central	%	East	%	Total	%	Average households per hectare
1974–75									1.00
Land	514	2.9	46	2.5	3,762	20.4	4,322	11.3	
Households	534	2.2	123	4.4	3,642	17.2	4,299	8.9	
1975–76									0.93
Land	1,217	6.8	22	1.2	4,893	26.6	6,132	16.1	
Households	1,389	5.7	23	0.8	5,129	24.2	6,541	13.6	
1976–77									0.79
Land	3,496	19.6	505	27.2	2,158	11.7	6,159	16.2	
Households	4,304	17.7	199	21.7	2,816	13.3	7,319	16.0	
1977–78									1.00
Land	1,169	6.6	342	18.4	3,170	17.2	4,681	12.3	
Households	1,772	7.3	295	10.7	2,635	12.4	4,702	9.8	
1978–79									0.94
Land	4,560	25.6	399	21.5	2,099	11.4	7,058	18.5	
Households	5,405	22.3	647	23.4	1,429	6.8	7,481	15.5	
1979–80									0.65
Land	1,603	14.6	421	22.7	886	4.8	2,910	10.3	
Households	4,078	16.8	510	18.4	1,418	6.7	6,006	12.5	

Mountain regions, Rs. 932 in the Hill region, and Rs. 1,005 in the Tarai (Nepal, NPC, 1983:106). The Mountain and Hill regions excluding Kathmandu Valley experience high demographic stress and extreme poverty. The symptoms of overpopulation in agrarian communities (Grigg 1980b: 20–28)—fragmentation of farms, small size of holdings, high land values, landlessness, and food scarcity—are all apparent.

Although the imbalance between the highlands and lowlands in agricultural resources is inherent in their geographic makeup, development activities of the last three decades have further widened the disparity between the two macro regions. The introduction of development planning in Nepal in 1956 coincided with the early years of malaria eradication and resettlement in the lowlands. The emphasis of various development plans on agriculture and road development hinged on the locational advantage of the fertile Tarai plain. On the other hand, the highlands, excluding metropolitan Kathmandu, remained an area of minimal development except for some road construction (Gurung 1969).

At the beginning of the Fourth Plan (1970–75), the Mountain and Hill regions, excluding Kathmandu Valley, were comparatively backward. They covered 69.9 percent of the country's total area but had 31.8 percent of the cultivated area, 34.2 percent of the estimated foodgrain production, and 45.4 percent of all-weather road mileage (Table 33). There were no large or medium-scale industries in the highlands except in Kathmandu Valley. The capital region was indeed an island of development in the highlands with 20.2 percent of the total mileage of roads, 37.5 percent of large and medium-scale industries, and 35.0 percent of its labor force in nonagricultural occupations. The lowlands, by contrast, had 65.3 percent of the cultivated area, 61.7 percent of the estimated foodgrain production, 34.4 percent of the road mileage, and 62.5 percent of the industries. Of the total labor force in the lowlands, 8.2 percent were engaged in nonagricultural occupations. The proportion of this labor force was only 5.9 percent in the highlands excluding Kathmandu Valley.

Regional disparity has continued to widen despite adoption of a balanced development policy since 1972. The Mountain/Hill (excluding Kathmandu) share in road mileage has remained the same as in the late 1960s, while that of the lowlands increased to 50.6 percent with the extension of the east–west highway (Table 33). The distribution of all industrial establishments employing 10 or more workers in 1982–83 was 14.3 percent in Mountain/Hill regions, 17 percent in Kathmandu Valley, and 68.7 percent in the lowlands (Nepal, CBS, 1985a). Labor force participation in nonagricultural occupations in 1981 for the Mountain/Hill regions was 6.2 percent compared to 13 percent in the lowlands and 30.5 percent in Kathmandu Valley out of their respective regional labor force.

Consequently, the economic importance of the lowlands has increased. During the mid-1960s, the lowlands contributed 59 percent of Nepal's gross domestic product (Table 33). Its contribution was estimated as 72 percent in industry, 65 percent in services, and 55 percent in agriculture (Gaige 1975:26–27). By the end of the 1970s, the lowland share in GDP had increased to 63 percent. Its contribution in all sectors was much higher than that of the Mountain/Hill regions including Kathmandu Valley: 1.9 times in agriculture and 2.6 times in industry. The lowlands showed a substantial increase in the agricultural contribution to GDP, while it declined from 45 to 34 percent in the highlands (Table 33).

The regional imbalance in development is well reflected in a study using 44 economic and sociocultural variables to determine the development level of 75 districts of Nepal (Shrestha and Sharma 1980). Of the 40 districts below the national level, 23 were Hill and 13 Mountain districts. The aggregation of districts into 15 census regions provides a basis for comparing regional levels of development and rates of net migration. Except for one deviation there is a close correlation between the level of development and the rate of net migration (Table 34). The exception is the Central Hill region, which ranks third with the inclusion of Kathmandu Valley in development. Excluding Kathmandu, the region would have the same rank (ninth) as its rate of net migration. Tarai regions rank high both in the level of development and in the rate of net migration. The Eastern Tarai, with the highest development level, is also the prime region of net migration. The Mountain regions have low levels of development and negative rates of net migration. Regions with lagging development also happen to be regions with high rates of out-migration (Table 34). The rank correlation between level of development and rate of net migration comes to 0.46. The lowland regions, endowed with more land resources as well as a higher level of development, are the main destination of migrants.

In a survey of 5,621 households in 10 Tarai districts, it was found that 31.6 percent were internal migrants (born in Nepal) and 6.9 percent were immigrants (Nepal, TFM, 1983). Among the internal migrants, a quarter were intraregional (from the Tarai) and three-quarters were from the Hill and Mountain regions. Among the migrants' reasons for choosing their destination were the presence of friends and relatives, land availability, and development facilities in the Tarai. Land-related reasons such as high productivity, low cost, and ease of forest clearance accounted for 18.6 percent of the migrant householders. Another 16.3 percent had been attracted by the presence of transport, market, education, and health facilities. About 11 percent had migrated due to resettlement schemes. Thus an overwhelming majority were spontaneous migrants lured by various advantages in the Tarai. Most migrants were better off at their destination than in their place of origin, primarily the hills. More than 80 percent of the migrants were in a better economic situation than at their place of origin. Another marked improvement was reported in their housing situation—in all areas whether urban, rural south, or rural north. Improvement of education and

Table 34. Level of development and migration by census region

Census region	Level of development[a]		In-migrants		Out-migrants		Net migration	
	Value	Rank	1981	Rank	1981	Rank	Rate	Rank
Mountain	935		53,628		315,095		-200.7	
Far West	715	14.5	10,886	11	13,241	11	-8.1	7
Midwest	715	14.5	7,330	14	5,912	14	+5.9	6
West	1,167	9	1,080	15	38,219	8	-1,861.5	15
Central	1,160	10	10,425	12	21,736	10	-27.4	10
East	1,142	11	23,907	10	235,987	2	-626.6	14
Hill	1,365		211,927		636,638		-59.3	
Far West	1,082	12	14,559	13	47,371	6	-54.3	12
Midwest	801	13	31,500	8	54,528	5	-22.1	8
West	1,522	7	62,572	6	150,104	3	-40.7	11
Central[b]	1,730	3	71,873	5	119,275	4	-22.5	9
East	1,375	8	31,423	9	265,360	1	-186.1	13
Tarai	1,811		773,307		86,151		+104.6	
Far West	1,710	5	92,200	4	1,211	15	+213.1	1
Midwest	1,603	6	54,364	7	12,238	12	+61.3	5
West	1,724	4	111,435	3	4,672	13	+111.5	3
Central	1,830	2	214,473	2	29,035	9	+77.7	4
East	2,002	1	300,835	1	38,995	7	+123.9	2

a. From Shrestha and Sharma (1980).

b. Including Kathmandu Valley.

health facilities was most marked in urban areas. Access to fuelwood, drinking water, and pasture land had also improved but at a comparatively lower level. Fuelwood and pasture access had improved most in the northern rural areas; improvement in drinking water was greatest in the urban areas. Overall the developed Tarai offered diverse livelihood and economic opportunities to the migrants.

CONSEQUENCES OF MIGRATION

The dominant pattern of highland–lowland migration in Nepal is an indicator of regional imbalance. Increasing population pressure in the highlands and polarization of development in the lowlands have contributed to larger volumes of this migration trajectory in recent decades. Most of the migrants are moving from resource-poor regions to regions with more land resources and employment opportunities. Interregional migration in Nepal has had a positive impact on the total economy in both the origin and destination regions. Large-scale out-migration from the highlands aids in relieving the pressure of population in depressed areas by providing alternative areas and avenues for livelihood. Transfer of population through migration to resource-rich regions has various advantageous impacts on the destination area. The migration of economically active people to low-density areas leads to fuller utilization of available resources. Expansion of cultivated land in the lowlands has directly contributed to an increase in overall food production. The growth of population in such high-potential regions also contributes to an increase in economic activity, more production, and economic development. The consequences of migration are most apparent at the destination, for the lowlands are undergoing significant changes in demographic character, social composition, land use, and level of development.

Demographic Shift

An obvious consequence of large-scale interregional migration has been the change in the size of regional population. Since the mid-1950s, population growth rates have been consistently higher in the lowlands. They have also had higher rates of net migration. The average annual population growth rate for the country during 1952/54–1981 was 2.16 percent, varying from 1.22 percent in Mountain/Hill regions to 3.34 percent in the Tarai to 3.46 percent in the Inner Tarai (Table 2). Of the total population increase of 6.5 million during 1952/54–1981, the Inner Tarai and the Tarai accounted for 66.7 percent. The increase in density in terms of additional persons per square kilometer in the lowlands was four times that in the highlands. Thus the lowland share in total population increased from 34.7 percent in 1952/54 to 48.7 percent in 1981.

Migration was an important factor in the increase of the Tarai population. During 1961–81, the Tarai experienced a 2.5-times increase in population and a 6.4-times increase in net migration. The last decade (1971–81) recorded the largest increases in population in regions of high in-migration (Tables 3 and 19). Mountain and Hill regions with negative net migration had a lower population growth. Growth rate and net migration were highest in the Far Western Tarai. In the Tarai, net migration volume was 10.5 percent of its 1981 population and 31 percent of its population increase during 1971–81. In the Far Western Tarai, the volume of net migration was 39.7 percent of the regional population increase and 21.3 percent of its total population. The Eastern Tarai came next with a high percentage of net migration volume compared to its total population and decennial increase.

During 1952/54–1981, the number of households in the country increased by 69.6 percent compared to a population increase of 81.9 percent (Table 35). Household increase was 39.9 percent in the highlands and 120.8 percent in the lowlands. The share of the lowlands in total households rose from 36.7 percent in 1952/54 to 48 percent in 1981. In 1952/54, the highlands had a larger average household size (5.8) than the national average

(5.6) and that of the lowlands (5.0). Three decades later, the average household size in the highlands declined while that of the lowlands increased (Table 35). The lowland average household size (5.9) in 1981 was higher than that of both the national average (5.8) and that of the highlands (5.7).

In 1981, some 51.3 percent of interregional migrants were males. Regions with high net migration gained more in male population. The change in sex ratio during 1952/54–1981 was 100.4 to 117.8 for the lowlands and 100.7 to 112.5 in the highlands (Table 35). The Eastern Tarai, Eastern Inner Tarai, and Eastern Mountain/Hill regions all changed from female to male preponderance. On the other hand, the number of males to females declined in the Central and Western Mountain/Hill regions. Male predominance was most marked in the Tarai. By elevation zone, the percentage of males in 1981 was 51.2 in the Mountain, 50.5 in the Hill zone, and 52 percent in the Tarai.

The increase in male population was more prominent in the Tarai, the primary destination of interregional migrants and immigrants. The increase of males vis-à-vis females was high in the Eastern Tarai, which also had the highest volume of net migration and immigration. In the hills, Kathmandu Valley with considerable in-migration had a very high increase in males. The overall rise in sex ratio in favor of males may also be attributed to a decrease in the rate of emigration and an increase in immigration, both of which are male dominated.

The broad age group of interregional migrants in 1981 was distributed as 70.2 percent aged 15–59 years, 22.6 percent below 14 years, and 7.2 percent over 59 years (Table 22). Migration seems to have contributed to the relative youthfulness of population in the destination regions. In 1952/54, the Tarai had a higher median age (23.3) than the Mountain/Hill regions (19.9). Three decades later, the median age for the Tarai declined while that of the Mountain/Hill regions increased. The proportion of youthful population increased markedly in the Tarai. The median age for the Tarai became lower than that of the Mountain/Hill region, thus reversing the previous situation.

The increase in population of ages 0–14 during 1952/54–1981 was 52.7 percent in the Mountain/Hill regions and 202.3 percent in the Tarai (Table 36). The proportion of this age group in the Tarai population rose from 36.3 percent in 1952/54 to 42.5 percent in 1981. Their increase in the Mountain/Hill regions was marginal (39.3 to 40.5 percent). Thus, there was a shift in dependency ratio at the macro-regional level.[13] In 1952/54, the Tarai had a lower dependency ratio than that of the Mountain/Hill regions: 0.62 against 0.74 (Table 36). By 1981, the Tarai had a high dependency ratio of 0.83 compared to 0.79 for the Mountain/Hill regions. Estimates of the total fertility rate (TFR), on the other hand, were higher for the Mountain/Hill regions (Table 36). The large increase in dependency ratio despite a lower TFR in the Tarai, therefore, indicates a sizable volume of households migrating with their dependents.

Other demographic variables that signify greater change in the lowlands are occupational pattern and urbanization. The increase in economically active population during 1952/54–1981 was 30.6 percent in the highlands and 94.3 percent in the lowlands (Table 37). In 1952/54, the proportion of the labor force in agricultural occupations out of the regional population was 96 percent in the Mountain/Hill regions (excluding Kathmandu Valley), 65.2 percent in Kathmandu Valley, 94.9 percent in the Inner Tarai, and 92 percent in the Tarai. Three decades later, the proportion of the Mountain/Hill labor force engaged in agriculture had declined only marginally (by 0.8 percent). It increased to 72.4 percent in Kathmandu Valley and declined to 89.3 percent in the Inner Tarai and to 85.6 percent in the Tarai. The proportion of the nonagricultural labor force in the Tarai increased from 8 percent in 1952/54 to 14.4 percent in 1981. The Tarai accounted for 68.9 percent of the total labor force increase in nonagricultural occupations.

The increase in the nonagricultural labor force is related to the availability of nonfarm employment. During the period under review, (1952/54–1981), the lowlands had a sizable growth in urban population (Table 4). The lowland share of the urban population increased from 17.4 to 53.3 percent while the proportion of population living in urban areas rose from 1.4 to 7 percent. The growth of the urban population can be traced to the increase in number of urban localities and to migration to urban areas. Of the 61,748 migrants to urban areas in 1971, some 58 percent were directed to lowland urban localities (Nepal, CBS, 1975: vol. V, table 40). The 1981 census does not provide data on migration for urban localities except to categorize the population as native or foreign-born. However, a 1983 survey of 10 Tarai districts indicated that 41.5 percent of the internal migrants and 55 percent of the immigrants were living in urbanized localities (Nepal, TFM, 1983: tables 11.7 and 11.25). Thus migration seems to have contributed to the growth of the urban population and to the increase of the nonfarm labor force in the lowlands.

Sociocultural Dispersal

Migration has brought about significant changes in the sociocultural composition of the regional population. This change is most apparent in the destination regions: the lowlands. There are also variations in extent of dispersal among the various sociocultural groups. Census data on religion and

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13. Dependency ratio is defined as the ratio of children under 15 years of age plus persons aged 60 years and above to the population 15–59 years of age times 100. That is:

$$DR = \frac{0\text{–}14 + 60+}{15\text{–}59} \times 100$$

where DR = dependency ratio
0–14 = children under 15 years of age
60+ = persons aged 60 and above
15–59 = persons aged 15–59 years

1980-81									0.54
Land	1,443	13.7	80	4.3	730	4.0	2,253	8.5	
Households	3,889	14.0	157	5.7	2,458	11.6	6,504	12.5	
1981-82									
Land	1,269	7.1			292	1.6	1,561	4.1	
Households	2,124	8.7			403	1.9	2,527	5.2	
1982-83									0.34
Land	557	3.1	42	2.3	412	2.2	1,011	2.7	
Households	1,287	5.3	412	14.9	1,237	5.8	2,936	6.1	
Total									0.79
Land	15,828	100.0	1,857	100.0	18,402	100.0	36,087	100.0	
Percentage	46.8		4.9		48.3		100.0		
Households	24,782	100.0	2,366	100.0	21,167	100.0	48,315	100.0	
Percentage	50.4		5.7		43.9		100.0		

Source: Nepal, Department of Resettlement, unpublished records.

Table 33. Indicators of change in regional economy: Late 1960s to early 1980s

A. Percentage distribution of selected indicators

Region	Cultivated area		Estimated foodgrain production		All-weather road		Industry		Nonagricultural workers	
							Large-scale	All		
	1969[a]	1981[b]	1967-68[c]	1982-83[c]	1969[a]	1983[d]	1969[a]	1982-83[e]	1952-54[f]	1981[f]
Nepal	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	6.9	8.9
Mountain/Hill*	31.8	42.2	34.1	36.5	45.4	45.6	14.3	5.9	6.2	
Kathmandu Valley	2.9	1.3	4.2	4.3	20.2	3.8	37.5	17.0	35.0	30.5
Tarai/Inner Tarai	65.3	56.4	61.7	59.3	34.4	50.6	62.5	68.7	8.2	13.0

a. Gurung (1969:4).

b. Kenting Earth Sciences (1986b).

c. Nepal, FAM (1983:97-246).

d. Route map of Nepal, Vista Maps, 1983, edited by Harka Gurung.

e. Nepal, CBS (1985a).

f. Nepal, CBS (1985b).

* Excluding Kathmandu Valley.

B. Change in composition of gross domestic product

Region	Agriculture[a]		Industry[b]		Services[c]		Total	
	1960s[d]	1970s	1960s[d]	1970s	1960s[d]	1970s	1960s[d]	1970s
Nepal[e]	100 (65)	100 (57)	100 (11)	100 (13)	100 (24)	100 (30)	100 (100)	100 (100)
Mountain/Hill*	45	34	28	28	35	48	41	37
Tarai/Inner Tarai	55	66	72	72	65	52	59	63

a. Asian Development Bank (1982: vol. II, pp 233–261); share of agricultural production is based on the total production of cereal grains for 1980–81.

b. Nepal, CBS (1981); share of industrial contribution is calculated on the basis of value added by industries in 1976–77.

c. Based on the index of development level; see Shrestha and Sharma (1980).

d. Gaige (1975:26–27).

e. Naya (1982).

* Including Kathmandu Valley.

Table 35. Number of households, average size of household, and sex ratio by geographic region: 1952-54 and 1981

	Number of households						
	Percentage distribution		Percentage increase	Average household size		Sex ratio	
Region	1952/54	1981	1952/54-1981	1952/54	1981	1952/54	1981
Nepal	100.0	100.0	69.6	5.6	5.8	100.6	105.0
Highlands	63.3	52.0	39.9	6.8	5.7	100.7	112.5
Mountain/Hill	58.4	47.2	37.9	5.8	5.7	101.0	101.3
West	16.3	13.2	39.0	6.1	5.8	102.5	101.0
Central	22.0	18.4	41.4	5.5	5.6	101.0	100.9
East	20.1	15.6	33.0	5.8	5.6	98.5	102.0
Kathmandu Valley	4.9	4.8	63.7	5.5	6.2	102.2	113.5
Lowlands	36.7	48.0	120.8	5.2	5.9	100.4	117.8
Inner Tarai	5.4	8.0	141.7	6.1	6.2	99.6	103.9
West	1.3	2.6	229.3	6.5	6.5	100.0	102.8
Central	1.9	3.2	181.5	6.1	6.1	102.0	106.0
East	2.1	2.2	76.8	5.9	6.0	96.8	102.4
Tarai	31.3	40.0	115.5	5.0	5.9	100.6	108.6
West	2.5	4.8	222.9	6.2	6.8	109.7	112.6
Central	5.1	6.1	101.2	4.7	6.1	103.1	108.9
East	23.7	29.0	107.3	5.0	5.7	99.0	107.8

Source: Nepal, DOS (1957: pt. I, sec. 1, table 7, and sec. 2, table 1); Nepal, CBS (1984: vol. I, pt. I, tables 1 and 3).

Table 37. Change in occupation of population above 14 years of age and economically active: 1952/54–81

Region	1952/54	%	1981	%	Change	%
Highlands	2,585,323		3,376,483		791,160	30.6
Mountain/Hill[a]	2,410,653	100.0	3,087,848	100.0	677,195	28.1
Agriculture	2,313,823	96.0	2,938,273	95.2	624,450	27.0
Nonagriculture	96,830	4.0	149,575	4.8	52,745	54.5
Kathmandu Valley	174,670	100.0	288,635	100.0	113,965	65.2
Agriculture	113,929	65.2	208,970	72.4	95,041	83.4
Nonagriculture	60,741	34.7	79,665	27.6	18,924	31.2
Lowlands	1,287,716		2,501,705		1,213,989	94.3
Inner Tarai	245,925	100.0	386,349	100.0	140,424	57.1
Agriculture	233,383	94.9	345,166	89.3	111,783	47.9
Nonagriculture	12,542	5.1	41,183	10.7	28,641	228.4
Tarai	1,041,791	100.0	2,115,356	100.0	1,073,565	103.0
Agriculture	958,268	92.0	1,809,724	85.6	851,456	88.9
Nonagriculture	83,523	8.0	305,632	14.4	222,109	265.9
Total	3,873,039	100.0	5,878,188	100.0	2,005,149	51.8
Agriculture	3,619,403	93.5	5,302,133	90.2	1,682,730	46.5
Nonagriculture	253,636	6.5	576,055	9.8	322,419	127.1

Source: Nepal, DOS (1957: pt. I, sec. 2, table 12a); Nepal, CBS (1984: vol. I, pt. V, table 24).

a. Excluding Kathmandu Valley.

mother tongue available since 1952/54 can be used as indicators of such dispersal. A high proportion of the total population claims adherence to Hinduism (the state religion) and Nepali (the national language). The large increase in their number, therefore, includes natural increase as well as those who have opted for these state-patronized cultural norms. Adoption of the Hindu religion and Nepali language is quite pronounced among hill tribals and more so at migration destinations outside their native area. Thus changes in the population of minority religious and linguistic groups provide a better measure of sociocultural dispersal than the spread of the Hindu religion and Nepali language, both pan-Nepalese aspects.

The 1981 census reported nearly 90 percent of the total population as Hindus. The rest were categorized as follows: 5.3 percent Buddhist, 2.6 percent Muslim, and 2.5 percent as others and unstated (Table 38). The Hindu population increased from 7.3 million in 1952/54 to 13.4 million in 1981. This large increase was due to natural increase, adoption of the Hindu religion by tribals, and immigration of Hindu caste groups from India. The increase of the Hindu population in the lowlands was more than three times that in the highlands.

The minority religions, Buddhism and Islam, are more location-specific. In 1952/54, some 78.9 percent of the Buddhists were in the highlands and 97.1 percent of the Muslims were concentrated in the lowlands (Table 38). In 1981 also, 72 percent of the Buddhists were in the highlands and 96.9 percent of the Muslims were in the lowlands. Unlike Hinduism, which incorporates diverse adherents, these two religious groups represent separate ethnic entities. Nepalese Buddhists are drawn basically from Mongoloid groups from the highlands while the Muslims are a Caucasoid people from the plains.

Of the three main religious groups in Nepal, the Buddhist population showed the least increase (Table 38). The slow growth of the Buddhist population as a whole may be attributed to attrition through Hinduization. Buddhists declined in absolute numbers in Kathmandu Valley and the Inner Tarai. Their increase in the Mountain/Hill regions (excluding Kathmandu Valley) was only 8.4 percent. Even in 1952/54, some 18.2 percent of the Buddhists were recorded in the Inner Tarai. In subsequent decades, many of them seem to have moved to the Tarai. By 1981, their number had grown substantially in the lowlands.

The increase of the Muslim population during 1952/54–1981 was 91.1 percent (Table 38). Part of this increase was due to immigration from India as well as Bangladesh. The Tarai remains their area of concentration: 96.6 percent in 1952/54 and 95.7 percent in 1981. There was also some regional dispersal. Their number in the Inner Tarai increased fivefold and in Kathmandu Valley nearly fourfold. The increase in the Muslim population was 103 percent in the highlands compared to 90.7 percent in the lowlands.

The 1952/54 census provides the earliest data on the linguistic composition of the population (Nepal, DOS, 1957: pt. I, sec. 2, table 9). The various languages and dialects can be classified as 18 Tibeto-Burman, 15 Indo-Aryan, three Dravidian, and two of the Munda family. The distribution of total population by linguistic families as mother tongue was 77.3 percent Indo-Aryan, 22.1 percent Tibeto-Burman, 0.2 percent Munda, 0.1 percent Dravidian, and 0.3 percent others and unstated. By geographic category, 70.6 percent of the total population had Mountain/Hill languages, 28.9 percent had Tarai languages, and 0.5 percent had Inner Tarai languages as their mother tongue. Of the total population, 48.7 percent had Indo-Aryan Nepali (hill language) as their mother tongue.

During 1952/54–1981, those with a Mountain/Hill mother tongue increased by 82.1 percent—mainly through doubling of those reporting Nepali as their mother tongue. The large growth in Nepali-speakers was due to natural increase and to the adoption of Nepali as the first language mainly by Tibeto-Burman speakers. Thus four hill tribal languages recorded an absolute decline during 1952/54–1981 (Map 6). Speakers of Tibeto-Burman languages increased by only 0.6 percent. Those having Tarai languages as their mother tongue increased by 64 percent. All Tarai languages, except Awadhi, had large gains in the number of speakers. The annual growth rate for Bhojpuri was 4.98 percent and that of Maithili was 2.24 percent (Table 39). It is obvious that such high growth rates were due less to natural increase than to immigration from India, the source area of these languages.

There have been significant changes in the number and proportion of population by mother tongue and geographic region. In 1952/54, the Tarai had 138,237 persons or 6.1 percent of its total population with Mountain/Hill languages as their mother tongue. By 1981, the Mountain/Hill language group in the Tarai had increased to 2,154,139 and constituted 38.5 percent of the Tarai population. On the other hand, the proportion of Tarai-language speakers in the highland population increased from 0.5 percent in 1952/54 to 1.1 percent in 1981. The largest increase in the Tarai was among Nepali speakers. The proportion of Nepali speakers in the Tarai rose from 2.3 percent in 1952/54 to 21.6 percent in 1981 (Table 39). The increase of Tibeto-Burman speakers (Mountain/Hill origin) was from 2.5 percent to 14.4 percent. All Mountain/Hill languages had proportionately higher increases in the lowlands than in their native area. The increase in the number and proportion of those with a Mountain/Hill mother tongue in the lowlands was due mainly to migration.

Each language or mother tongue can be ascribed to a native area where the majority of speakers reside. The proportion of those living outside the native area may be taken as a measure of dispersal. In 1952/54, nine of the 16 classified languages had more than 90 percent speakers within their native area (Table 39). Five of the seven Tarai languages had the least dispersal. No Rajbansi, Satar, and Santhal speakers were recorded outside the Eastern Tarai. Conversely no Bhote-Sherpa and Sunuwar were recorded in the Inner Tarai and Tarai. Tharu and Tamang were the only groups that had a majority of their speakers outside their native area. The next linguistic group with high dispersal was Newari. A third of Nepali and Magari speakers were also outside their native area. Dispersal of Nepali was due to migration and to adoption of Nepali by Tibeto-Burman tribal groups. Of the nine Hill languages, four had more than 90 percent speakers in their native area.

By 1981, only three Tarai languages had more than 90 percent speakers in their native area (Table 39). Four language groups had more people outside the native area. Dispersal among Tamang speakers increased from 51.5 to 60.7 percent, while for Nepali it increased from 33.9 to 53.1 percent. Despite high dispersal, Newari and Tharu were the only groups that increased their proportion in their native area. Dispersal of Magari speakers was also quite high. Hill languages had a higher degree of dispersal in the lowlands than those of Tarai languages in the highlands—evidence of a predominantly highland-lowland migration.

Thus the two macro-regions show divergent patterns in the change of speakers by native area. Of the 10 languages (other than Nepali) with more than 1 percent speakers out of the total population, six are of the Hill group and four of the Tarai group (Map 6). During 1952/54–1981, all such Hill languages, except Newari, recorded absolute declines in their native area. The decline was due to increasing adoption of the Nepali language and to dispersal by migration to other regions. In the Tarai, however, all languages but Awadhi recorded an increase in their native area. The increase for Maithali and Bhojpuri was significantly high and can be attributed to a high rate of immigration.

Land-Use Change in the Lowlands

One of the visible consequences of migration in the lowlands has been the change in land use. Since most movement is rural-to-rural, it has involved large-scale forest encroachment for agricultural settlement. Estimates of deforestation in the lowlands diverge widely. For the period 1964–72, the figures for deforestation range from 120,000 hectares (Nepal, Forest Ministry, 1976:5) to 340,000 hectares (World Bank 1974: annex 1). Another source states that during 1964–74 land cleared from forest for official settlement was 77,700 hectares but an additional 237,600 hectares of forest area was lost by encroachment (Nepal, NPC, 1974:10). One source using these diverse estimates concluded that up to 10,000 families (50–60,000 people) were migrating each year and encroaching on an average of 20,000 hectares of forest land (Dixon 1977:103).

The first inventory of forest resources made in 1963–64 for the Tarai and adjacent regions covering 3 million hectares indicated that 51.1 percent of the area was under forest (Table 40). The 11 Tarai forest divisions, excluding the Inner Tarai divisions of Dang and Chitawan, had 1.5 million hectares under forest of which 23,728 hectares were encroached upon (Nepal, FRS, 1967). The area under forest was distributed as 42.9 percent in the Eastern Tarai, 41.4 percent in the Western Tarai, and 15.7 percent in the Central Tarai. Forest land covered 72 percent of the west, 48.8 percent of the central, and 40.5 percent of the east in terms of their respective regional areas. In 1974–75, the Tarai forest divisions had 1.4 million hectares of forest land (Table 41). This indicates a depletion of 156,198 hectares or 10.2 percent since 1963–64. Of the total forest land cleared, 54.4 percent was in the east, 29.4 percent in the west, and 16.2 percent in the Central Tarai.

The 1963–64 forest data by forest division were based on aerial photographs (scale 1:21,120). The Land Resources Mapping Project data based on aerial photographs (scale 1:50,000) provide another set of estimates on Tarai forest by administrative district (Kenting Earth Sciences 1986b). Although the areal extent of the two data sources varies by 3.7 percent, comparison of land-use proportions within each forest division indicates further depletion in forest area. Compared to 51.1 percent of the Tarai area under forest in 1963–64, forest area declined to 43.7 percent in 1978–79 (Table 40). During the 15-year interval, forest area declined from 40.5 percent to 28.1 in the east and from 72 percent to 67.5 in the west. In the Central Tarai, it declined from 48.8 percent to 44.7. In 1963–64 the east led with 42.9

Table 36. Dependency ratio and fertility rate by macro region

A. Change in broad age groups and dependency ratio

	Nepal			Mountain and Hill			Tarai		
Age group	1952/54	1981	Change %	1952/54	1981	Change %	1952/54	1981	Change %
0–14	38.4	41.4	+96.2	39.3	40.5	+52.7	36.3	42.5	+202.3
15–64	58.9	55.4	+71.6	57.7	56.0	+44.5	61.8	55.4	+128.4
Over 64	2.7	3.2	+121.9	3.0	3.5	+71.2	1.9	2.1	+310.2
Dependency ratio	0.70	0.81		0.74	0.79		0.62	0.83	

Source: Nepal, DOS (1957: pt. I, sec. 2, table 2); Nepal, CBS (1984: vol. II, table 5, pp. 61, 64, 67).

B. Estimated total fertility rate

Year	Mountain	Hill	Tarai
1971[a]	5.99	6.08	5.34
1981[b]	5.78	6.03	5.79

a. From Karki (1984).

b. From Nepal, CBS (1985b: table 7.8).

Table 38. Distribution and change in population by religion: 1952/54–1981

A. Percentage distribution of population by religion

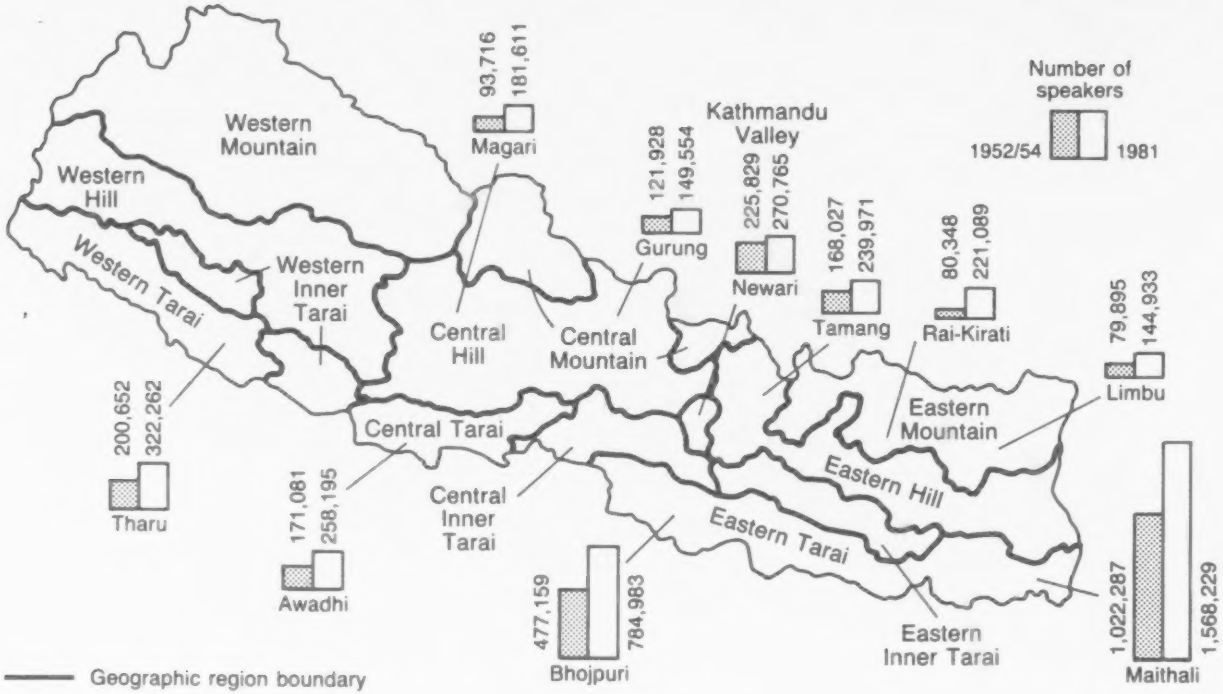
Region	Hindu		Buddhist		Muslim		Other/unstated		Total
	1952/54	1981	1952/54	1981	1952/54	1981	1952/54	1981	
Nepal	88.9	89.5	8.9	5.3	2.5	2.6	0.0	2.5	100.0
Mountain/Hill	90.5	90.0	9.3	7.1	0.1	0.1	0.0	2.8	100.0
Kathmandu Valley	75.7	87.4	23.9	10.0	0.3	0.5	0.1	2.1	100.0
Inner Tarai	74.1	89.4	25.7	8.9	0.2	0.4	0.0	1.3	100.0
Tarai	90.8	89.4	0.8	1.8	8.4	6.3	0.0	2.5	100.0

B. Change in Buddhist and Muslim population

Region	Buddhist				Muslim			
	1952/54	1981	Change	%	1952/54	1981	Change	%
Nepal	707,104	799,081	91,977	13.0	208,899	399,197	190,298	91.1
Highlands	558,122	575,072	16,950	3.0	6,137	12,457	6,320	103.0
Mountain/Hill[a]	459,731	498,129	38,398	8.4	5,103	8,416	3,313	64.9
Kathmandu Valley	98,391	76,943	-21,448	-21.8	1,034	4,041	3,007	290.8
Lowlands	148,982	224,009	75,027	50.4	202,762	386,740	183,978	90.7
Inner Tarai	128,829	113,405	-15,424	-12.0	964	4,798	3,834	397.7
Tarai	20,153	110,604	90,451	448.8	201,798	381,942	180,144	89.3

Source: Nepal, DOS (1957: pt. I, sec. 2, table 5); Nepal, CBS (1984: vol. I, pt. III, table 13).

a. Excluding Kathmandu Valley.


Number of speakers
1952/54
1981
Western Mountain
Western Hill
Western Tarai
Western Inner Tarai
Central Hill
Central Mountain
Kathmandu Valley
Central Tarai
Central Inner Tarai
Eastern Mountain
Eastern Hill
Eastern Tarai
Eastern Inner Tarai
93,716
181,611
Magari
121,928
149,554
Gurung
225,829
270,765
Newari
168,027
239,971
Tamang
80,348
221,089
Rai-Kirati
79,895
144,933
Limbu
200,652
322,262
Tharu
171,081
258,195
Awadhi
477,159
784,983
Bhojpuri
1,022,287
1,568,229
Maithali
Geographic region boundary

Map 6. Change in number of speakers of main languages* in native area: 1952/54–1981
Source: Nepal, DOS (1957: vol. I, pt. II, table 9); Nepal, CBS (1984: vol. I, pt. III, table 12).
*Excluding Nepali, the national language.

Table 39. Linguistic dispersal by geographic region (1952/54 and 1981) and growth rate (1952/54–1981)

				Outside native area								
		In native area		Mountain-Hill		Kathmandu Valley		Inner Tarai		Tarai		Average annual growth rate (%)
Mother tongue	Native area	1952/ 54	1981	1952/ 54	1981	1952/ 54	1981	1952/ 54	1981	1952/ 54	1981	1952/54–1981
Mountain/Hill												
Indo-Aryan												
Nepali	West/Central Hill	66.1	46.9	21.8	18.6	4.0	4.7	5.7	8.2	2.3	21.6	4.23
Tibeto-Burman												
Tamang	Eastern Hill	48.5	39.3	22.7	20.1	3.9	6.6	21.6	19.9	3.3	14.1	0.20
Newari	Kathmandu Valley	58.9	60.3	34.1	22.5	58.9	60.3	4.2	5.8	2.8	11.4	0.61
Rai-Kiranti	Eastern Hill	93.7	59.4	0.0	12.7	0.0	1.8	5.1	10.5	1.2	16.4	-0.28
Magari	Central Hill	66.3	50.4	18.6	12.3	0.3	0.5	9.8	14.6	5.0	22.4	-0.80
Gurung	Central Hill	92.2	76.4	5.6	4.7	0.3	1.9	1.6	5.7	0.3	11.3	0.27
Limbu	Eastern Hill	99.6	80.7	0.0	0.2	0.0	0.2	0.0	0.4	0.3	18.5	-0.40
Bhote-Sherpa	Eastern Mountain	74.5	46.9	25.1	35.4	0.4	2.6		1.7		7.8	0.18
Sunuwar	Eastern Hill	94.0	70.8		4.8	0.0	0.5		1.7		7.4	-1.37

Table 40. Change in proportion of land use in the Tarai: 1963–64 and 1978–79

	1963–64[a]		1978–79[b]	
Land use	Hectares	%	Hectares	%
West	878,016	100.0	928,004	100.0
Forest land	631,800	72.0	626,037	67.5
Cropland/agricultural	112,845	12.8	249,062	26.8
Other	133,371	15.2	52,905	5.7
Central	492,006	100.0	518,631	100.0
Forest land	240,293	48.8	232,070	44.7
Cropland/agricultural	211,323	43.0	261,903	50.4
Other	40,390	8.2	24,658	4.8
East	1,617,452	100.0	1,443,349	100.0
Forest land	654,298	40.5	404,883	28.1
Cropland/agricultural	826,028	51.1	927,392	64.3
Other	137,126	8.5	111,074	7.7
Total	2,987,474	100.0	2,889,984	100.0
Forest land	1,526,391	51.1	1,262,990	43.7
Cropland/agricultural	1,150,196	38.5	1,438,357	49.8
Other	310,887	10.4	188,637	6.5

a. From Nepal, FRS (1967:17).

b. From Kenting Earth Sciences (1986a: app. 5).

percent of the Tarai forest. By 1978–79, its share had fallen to 32 percent. Nearly half of all Tarai forest area left in 1978–79 was in the west.

The depletion in forest area was associated with expansion of cultivated area. During 1963–64 to 1978–79, the proportion of cropland in the Tarai increased from 38.5 percent to 49.8 (Table 40). In 1963–64, the Tarai forest divisions included 1,150,196 hectares of cultivated land. The percentage of such land was 51.1 in the east, 43.0 in the Central Tarai, and 12.8 in the west. By 1978–79, the proportion of cultivated land increased in all regions, particularly in the west, from 12.8 percent to 26.8 percent of its regional area. It increased from 43 to 50.4 percent in the Central Tarai and from 51.1 to 64.3 percent in the Eastern Tarai.

Changes in forest area (1963–64 to 1974–75) and their regional proportion (1963–64 to 1978–79) show a greater extent of deforestation from west to east. The Eastern Tarai had the largest magnitude of population increase and greatest loss in forest land. The number of additional persons per hectare of forest land lost was 8.6 in the east, 8.4 in the Central Tarai, and 2.5 in the west. The number of additional migrants per hectare of forest cleared was the same in all regions, however. The Tarai experienced a 38.2 percent increase in population and a 233.6 percent increase in net migration during 1961–71 (Table 41) compared to a 10.2 percent decrease in forest land

Table 41. Depletion of forest land and population increase in the Tarai

A. Depletion of forest land: 1963–64 to 1974–75

	1963–64[a]		1974–75[b]		Decrease	
Region	Hectares	%	Hectares	%	Hectares	%
West	631,800	41.4	585,923	42.8	45,877	7.3
Central	240,293	15.7	214,936	15.7	25,357	10.6
East	654,298	42.9	569,334	41.5	84,964	13.0
Total	1,526,391	100.0	1,370,193	100.0	156,198	10.2

a. From Nepal, FRS (1967:17).

b. From Forest Dept. Land Use Survey, 1974/75; cited in Asian Development Bank (1982: vol. II, app. 2.26).

B. Increase in population and net migration: 1961–71

	1961		1971		Change	
Region	Number	%	Number	%	Number	%
Population[a]	2,903,014	100.0	4,012,385	100.0	1,109,371	38.2
West	271,551	9.4	438,041	10.9	166,490	61.3
Central	418,181	14.4	632,401	15.8	214,220	51.2
East	2,213,282	76.2	2,941,943	73.3	728,661	32.9
Net migration[b]	119,895	100.0	399,925	100.0	280,030	233.6
West	20,625	17.2	69,146	17.3	48,521	235.3
Central[c]	31,088	25.9	155,247	38.8	124,159	399.4
East	68,182	56.9	175,532	43.9	-107,350	157.4

a. See Appendix Table 1.

b. See Tables 15 and 16.

c. For valid comparison, net migration in Central Tarai for 1961 includes Inner Central Tarai. Net migration in Central Tarai for 1971 also includes Parsa, Bara, and Rautahat districts, which were in Eastern Tarai in 1961.

during 1963–64 to 1974–75. Roughly speaking, an increase of 1.8 persons in net migration means the depletion of 1 hectare of forest land.

The estimates of area under various crops provide another indication of expansion in cultivated area. It is to be noted, however, that the cultivated area and cropped area vary due to double and multiple cropping.[14] During the decade 1970–71 to 1980–81, Nepal's total area under various crops is estimated to have increased by 14.6 percent (Nepal, FAM, 1972, 1983).

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[14] During 1980–81, for example, the Tarai had 1,401,426 hectares as cultivated area (Nepal, CBS, 1985b:19) and 1,570,800 hectares under various crops (Nepal, FAM, 1983)—thus yielding an excess of 14 percent in gross cropped area to cultivated area.

Of this increase, 236,600 hectares or 74.8 percent was registered in the lowlands. The Tarai had a 14.3 percent and the Inner Tarai a 25.1 percent increase in cropland (Table 42). The Eastern Tarai registered a 13 percent decrease in forest land during 1963–64 to 1974–75 and a cropland increase of the same extent during 1970–71 to 1980–81. In the Central Tarai the percentage of increase in cropland was twice the percentage of depletion in forest land.

During the decade 1970–71 to 1980–81, the lowlands had 236,220 hectares or a 16 percent increase in cropland as against a population increase of 2,532,593 or 51.5 percent (Table 42)—that is, an increase of 11 persons for each additional cropped hectare. Population increase vis-à-vis cropland increase was high in Western Tarai (16 persons/hectare) and low in Central Tarai (7 persons/hectare). The total volume of net migration to the Tarai recorded in the 1981 census was 686,178—an increase of 3.8 more migrants on each additional hectare of land. In other words, the Tarai regions are the prime destination of most migrants and have therefore experienced a rapid change in land use. Essentially the process involves converting forest and other land into cropland.

The Making of a Dynamic Region

Nepal has been experiencing a large-scale redistribution of population through spontaneous migration. Two-thirds of the interregional migrants and most immigrants were directed to the lowlands, which experienced a rapid population growth of 2.5 times in less than three decades. Despite the predominance of rural-to-rural migration, urban growth was high as well. The average annual rate of urban population growth in the lowlands was 7.8 percent compared to 3.5 percent in the highlands. Overall the lowlands had an average annual growth rate twice that of the highlands. Levels of development, too, are higher in the lowland regions (Table 43). In economic development (agriculture, industry, transport, banking), the Tarai led all other elevation zones. Among geographic regions, Kathmandu ranked first and Central Inner Tarai second. Most lowland regions except Eastern Inner Tarai had a higher economic development level than the highland regions except Kathmandu Valley. In sociocultural development (education, health, communication), the Tarai and Inner Tarai ranked higher than the Hill and Mountain zones. Kathmandu Valley ranked highest in sociocultural development; Eastern and Central Inner Tarai and the Central Hill region came next; the Western Mountain and Hill regions had very low levels of sociocultural development.

Kathmandu Valley, Central Inner Tarai, and all three Tarai regions ranked high in regional development. Of the 18 Tarai districts, 17 had regional development values higher than the national average (Shrestha and Sharma 1980:140–45). In the Inner Tarai, three districts were above and three were below the national level. In the Hill region, 10 districts had higher and 23

Table 43. Levels of development by geographic region: 1977

	Economic		Sociocultural		Regional	
Region	Value	Rank	Value	Rank	Value	Rank
Mountain	362.9	D	552.6	D	915.5	D
West	247.6	13	467.1	13	714.8	12
Central	458.3	11	707.2	7	1,165.3	10
East	521.8	9	607.8	11	1,129.5	11
Hill	568.0	C	704.3	C	1,272.3	C
West	368.8	12	497.3	12	865.6	13
Central	683.0	7	818.9	4	1,502.1	6
Kathmandu Valley	1,154.7	1	1,172.7	1	2,327.5	1
East	618.0	8	762.3	5	1,380.3	8
Inner Tarai	781.3	B	733.8	B	1,515.1	B
West	776.3	6	643.0	10	1,419.3	7
Central	1,065.3	2	863.0	3	1,928.3	2
East	502.3	10	695.5	8	1,197.8	9
Tarai	1,010.3	A	803.3	A	1,812.9	A
West	948.6	5	718.8	6	1,666.5	5
Central	1,038.5	3	685.7	9	1,724.2	4
East	1,025.1	4	866.2	2	1,890.4	3

Source: Shrestha and Sharma (1980:140–45).

lower values. Of the 15 Mountain districts, only two had values higher than the national average. Thus 20 of the 24 lowland districts had levels of development higher than the national average. The aggregate values of development for the Tarai and Inner Tarai were much higher than those of Mountain and Hill districts. Kathmandu Valley appeared as an island of high-level development in the generally backward highland area. In macroregional terms, one could say that the higher the elevation of a geographic region, the lower the level of regional development.

Development indicators of recent years show the comparative advantage of the Tarai regions. In terms of the road length/area ratio, for example, the Tarai leads with 11.0 followed by the Hill region with 22.9; the road length/area ratio for the Mountain region is 245.8 (Nepal, NPC, 1987:22–23). Three mountain regions (Midwest, West, and East) have no road (Table 44). All five Tarai regions rank high in road length/area ratio. An exception to this pattern of underdevelopment in the hills is the Central Hill region (including Kathmandu Valley), which ranks second. The physical quality of life index (calculated on the basis of average life expectancy at birth, infant mortality, and literacy rate) also places three Tarai regions at the top followed by two Hill regions. The Far Western and Midwestern regions in the

Table 44. Rank order of census regions by selected indicators

Region	Road mileage (1985)	Physical quality of life	Development expenditure (1985–86)	Estimated GDP (1984–85)	Level of development (based on 25 variables)
Mountain					
Far West	12	14	12	13	14
Midwest	15	14	14	15	
West	11	15	15	9	
Central	10	10	11	12	13
East	9	13	11	12	
Hill					
Far West	9	12	10	10	10
Midwest	11	13	8	9	11
West	7	7	3	5	6
Central[a]	2	5	1	2	1
East	8	4	7	7	8
Tarai					
Far West	6	6	9	8	7
Midwest	5	8	6	6	5
West	3	2	5	4	3
Central	4	3	2	1	4
East	1	1	4	3	2

Source: Nepal, NPC (1987).

a. Including Kathmandu Valley.

Mountain and Hill zones rank very low in physical quality of life (Nepal, NPC, 1987:32–34). Of the total development expenditure of Rs. 3,297 million during fiscal year 1985–86, the Hill region claimed 59.8 percent as against 33.9 percent for the Tarai and 6.2 percent for the Mountain (Nepal, NPC, 1987:14–15). Central Hill (including the capital region) ranked first in development expenditure followed by Central Tarai. But most Tarai regions were placed higher than other Hill and Mountain regions except Western Hill (Table 44). The five Mountain regions ranked very low in development expenditure.

The total estimated GDP of Nepal was valued at Rs. 4,174 million at 1984–85 current prices; of this amount, 56.5 percent was contributed by the Tarai regions. The share of Hill regions was 39.2 percent and that of Mountain regions only 4.3 percent (Nepal, NPC, 1987:11–12). Central Tarai ranked first and Central Hill second; Eastern and Western Tarai ranked third and fourth in GDP contribution. The level of development based on 25 variables placed Central Hill (including the capital region) in the first rank. The next four places were taken by Tarai regions (Nepal, NPC, 1987:35–39). The last four in level of development were Mountain regions (Table 44). As a general pattern, the Tarai regions had a comparatively higher level of development except for Central Hill, which includes the capital region.

The lowlands with its concentration of infrastructural and production factors has emerged as a dominant region of demographic and economic transformation. Once it was a region associated with large estates of absentee landlords; today, however, increasing numbers of landless households encroaching and squatting on forest and common land have generated political tension (Kaplan and Shrestha 1982). The problem of squatters, a new expression of increasing poverty and economic inequality, is basically the outcome of increasing migration from the resource-poor highlands. Interregional migrants are directed to the lowlands for agricultural settlement. The lowlands, particularly the Tarai, is also the prime destination of immigrants. Unlike internal migrants, the immigrants are moving to lowland areas that were settled earlier and to urban areas. The dynamism of the lowlands economy has attracted immigrants, many of whom intend to stay permanently (Nepal, TFM, 1983). With a few exceptions, Tarai districts with a high percentage of foreign-born and foreign citizens have a comparatively low percentage of internal migrants. Thus interregional migrants and immigrants are moving into different ecological niches: the former to frontier lands and the latter to settled areas and generally in secondary and tertiary occupations.

The traditional Nepalese term for the Inner Tarai and the Tarai lowlands is *madhesh*—a geographical extension of the *madhya-desha* (heartland) referring to the Gangetic plain. Until the late 1950s, the prevalence of endemic malaria made it a peripheral region. In the last three decades, however, large-scale migration and development activities have transformed it. Indeed, recent demographic and economic processes have all the potential of transforming the lowlands into a dynamic region.

POLICY IMPLICATIONS

Pattern and Determinant

Nepal has been experiencing rapid population growth in recent years. In less than three decades (1952/54–1981), the total population increased from 8.5 to 15 million. Projections of population for the year 2001 range from 21 to 26 million under low and high variants respectively—an increase of 1.4 to 1.7 times in another two decades (Nepal, CBS, 1986b). Another significant feature is the increasing magnitude of population redistribution through migration. During the period 1952/54–1981, the increase in total population was 1.8 times as against a 2.7 times increase in absentee population (reported away from home for six months or more). The increase in the number of such absentees was 10 times for those inside the country compared to two times for those outside the country, indicating increasing internal mobility. The last two decades (1961–81) recorded a 6.7-times increase in out-migrants from the highlands and a 5.6-times increase in in-migrants to the lowlands. The principal migration trajectory was from the hills to contiguous Tarai regions. Given the fertility, mortality, and migration trend of the last intercensal period (1971–81), the total population of the Tarai is projected to exceed 10 million (low variant) to 13 million (high variant) by the year 2001 from the present 6.6 million (Nepal, CBS, 1986b: table 50). This increment needs to be directed in a planned manner.

The principal reason for out-migration, particularly from the hills, has been increasing pressure of population on limited land resources. Considering the sizable volume of emigration in the last century, population pressure in the Nepal hills is not a new phenomenon. In the past, despite the government's inducements to settle in the lowlands, out-migration was primarily directed outside the country to new frontier lands in the eastern Himalaya and for military service in India. Since the late 1950s, however, there has been a major shift in the migrants' destination. The increase in number of absentees abroad during 1952/54–1961 was 65.8 percent; in the following two decades (1961–81), it increased by only 22.7 percent. Absentees abroad as a percentage of total absentees declined from 84.9 in 1961 to 68.2 in 1981. That only 3.5 percent of the total absentees abroad were there for agricultural reasons indicates the limited scope of land colonization outside the country.

The main reason for the shift of migratory trajectory with the Tarai and Inner Tarai as new destinations was the control of malaria, which led to the transformation of the lowlands from a marginal region to a viable settlement area. The opening of the lowlands through malaria eradication and resettlement programs since the mid-1950s has provided a new frontier for large-scale rural-to-rural migration within the country (Nepal, NCP, 1984). To the increasing number of land-hungry peasants from the overpopulated highlands, the virgin forest and grassland of the lowlands has become a new resource for conversion to farmland. That most interregional migrants as well as in-migrants to the lowlands moved for agricultural reasons is clear evidence that land availability is the primary motive for internal migration. Moreover, the concentration of infrastructural and other developmental activities in the lowlands has provided new opportunities for further in-migration.

The lowlands has now emerged as the area of migrant convergence from both within and outside the country. The impelling forces have, however, a subtle distinction. The influx of internal migrants to the Tarai and Inner Tarai is basically a man/resource adjustment with cultivated land as the resource base. On the other hand, immigration represents both a population movement from a high-density to a low-density area and new economic opportunities across the open border. Established migration streams of internal migration as well as immigrants to the lowlands indicate further increases in their number with serious implications for the country's demographic, developmental, and political future.

Population Redistribution

Economic development plans, even without spatial considerations, may induce population distribution with major consequences (Mabogunje 1981). This is what happened in the case of Nepal. The earlier periodic plans had no explicit policies regarding regional development and population redistribution. The initiation of development planning in 1956, in fact, coincided with the opening of the Central Inner Tarai for resettlement with malaria control. The main objective of the program was rehabilitation of the hill population adversely affected by natural disasters. This was followed by extension of malaria eradication and resettlement programs to cover other lowland areas in the subsequent plans for agricultural development through cropland expansion. This in turn led to expansion of cultivated area at the cost of forest land and also resulted in a sizable redistribution of the population.

A comprehensive population policy was first formulated in the Fifth Plan (1975-80). Of the five stated policy instruments, one dealt with fertility control and the remaining four focused on population redistribution (Nepal, NPC, 1975:42): regulation of internal migration, population shift to the low-density Tarai (particularly to Western Tarai), deliberate urbanization in backward regions, and immigration control (Table 45). However, the plan did not include any concrete programs to support these policies except in resettlement. Even in the case of the resettlement program, targets were modest compared to the volume of spontaneous migrants that overwhelmed government efforts. And the efforts to settle land and resettle families fell rather short of the target—42 percent in the first case and 62 percent in the second.

The Sixth Plan (1980-85) included seven policy measures with reference to population, but only one of these dealt with redistribution (Nepal, NPC, 1980:716). It referred to regulation of internal migration and development of small towns (Table 45), but again there was a lack of implementation programs. Despite increasing illegal encroachment in lowland forests, targets for resettlement were considerably reduced and the achievement in land settled was 62.2 percent and families resettled 82.2 percent. Subsequently, a national population strategy with five major thrusts was formulated; four measures were related to mechanisms of fertility control and one to immigration control (Nepal, NCP, 1983a:4). The references to comprehensive migration and urbanization policies were not supported with specific programs.

Table 45. Regional development and population redistribution policies in recent plans

Fifth Plan (1975–80)	Sixth Plan (1980–85)	Seventh Plan (1985–90)
I. Regional development		
1. Product specialization by elevation zone	1. Product specialization by elevation zone	1. Reduction of regional disparity
2. Intensification of activities along major roads	2. Intensification of activities along major roads	2. Rationalization of regional resource allocation
3. Growth center and area development	3. Development of small towns	3. Development of growth and service centers
	4. Integrated rural development	4. Integrated rural development
II. Population redistribution		
1. Regulate migration from the Hill to the Tarai and from rural to urban areas	1. Regulate migration from the Hill to the Tarai	1. Immigration control
2. Increase density of population in the Tarai, particularly in Western Tarai	2. Encourage urbanization	
3. Encourage urbanization in backward regions		
4. Immigration control		
III. Resettlement target		
1. Land: 93,016 hectares	1. Land: 35,586 hectares	
2. Families: 64,300	2. Families: 32,180	
IV. Resettlement policy		
		1. No provision for land-based resettlement except completion of program on 13,442 hectares as carryover from the Sixth Plan

Source: Nepal, NPC (1975:28–43); Nepal, NPC (1980:182–92, 714–16); Nepal, NPC (1985: 143–55, 229–37).

Tarai												
Indo-Aryan												
Maithali	Eastern Tarai	99.8	94.0	0.0	4.2	0.0	0.5	0.2	1.3	0.0	1.1	2.24
Bhojpuri	Eastern Tarai	99.9	68.7	0.0	0.8	0.0	0.1	0.0	0.1	30.3	4.98	
Tharu	Western Tarai	41.7	42.9	7.7	0.7	0.0	0.0	24.8	23.2	25.8	33.1	1.85
Awadhi	Central Tarai	78.6	73.0	0.1	0.4		0.1	1.5	0.2	19.9	26.3	-1.02
Rajbansi	Eastern Tarai	99.9	93.6		3.0		1.4		0.4	0.0	1.5	2.40
Munda												
Satar	Eastern Tarai	99.9	96.8		2.1		0.7	0.0	0.3		0.4	1.21
Santhal	Eastern Tarai	100.0	77.9		17.5		0.5		3.1		1.0	37.03

Source: Nepal, DOS (1957: vol. I, pt. II, table 9); Nepal, CBS (1984: vol. I, pt. III. table 12)

Note: See Map 6.

Table 42. Change in area under crops and population increase in the Inner Tarai and Tarai: 1971-81

Region	1970-71		1980-81		Change		Population increase (1971-81)	
	1,000 ha.	%	1,000 ha.	%	1,000 ha.	%	Persons	%
Inner Tarai	232,080	15.7	290,220	16.9	58,140	25.1	370,197	40.7
West	75,900	5.1	120,230	7.0	44,330	58.4	141,292	48.5
Central	107,600	7.3	111,870	6.5	4,270	4.0	149,675	42.4
East	48,580	3.3	58,120	3.4	9,540	19.6	79,230	30.0
Tarai	1,245,360	84.3	1,423,840	83.1	178,480	14.3	2,018,479	50.3
West	199,800	13.5	223,690	13.1	23,890	12.0	393,202	89.8
Central	236,250	16.0	285,620	16.7	49,370	20.9	325,568	51.5
East	809,310	54.8	914,530	53.4	105,220	13.0	1,299,709	44.2
Total	1,477,440	100.0	1,714,060	100.0	236,620	16.0	2,388,676	48.5

Source: Nepal, FAM (1983:97-246).

Note: See Appendix Table 2.

ha.—hectares

The Seventh Plan (1985–90) evidences the traditional pattern of adopting policy goals that are "currently fashionable" (Fuchs 1983:22). The plan has adopted the five major strategic thrusts enunciated by the National Commission on Population as the basic population policy with no consideration given to spatial distribution of population (Nepal, NPC, 1985:153). Furthermore, the plan has no provision for land-based settlement (Table 45). The rationale given for this new policy is conservation of existing forest areas to maintain ecological balance (Nepal, NPC, 1985:488–89). Thus the current policies on population in Nepal emphasize fertility control and neglect the distribution aspect. Even where there have been policy pronouncements regarding population redistribution (as in the Fifth Plan), there has been a singular lack of concrete programs and instruments. A comprehensive population policy must encompass migration along with fertility and mortality. In a country with immense regional diversity (both natural and developmental), population redistribution through migration has even more relevance.

Spatial Development

Population redistribution programs are often a subsidiary component of general spatial programs dealing with modernization and economic development (United Nations 1981). Thus the goals of development strategy in a country ultimately determine the spatial distribution of the population and changes in that distribution (Simmons 1983:30). In the case of Nepal, the first attempt to visualize national development in spatial terms was made in the Fourth Plan (Nepal, NPC, 1970: app. III). It proposed concentration of development activities along four north–south growth axes with roads in order to integrate the economies of the highlands and lowlands (Gurung 1969, 1984a:246–56). However, the various sectoral programs included in the plan were not tied to this spatial development strategy.

Subsequent periodic plans (Nepal, NPC, 1975:28–33; Nepal, NPC, 1980:182–92, Nepal, NPC, 1985:229–37) all included policy statements on regional development. These may be listed as specialization according to elevation zone (cereal production in the Tarai, horticulture in the Hill region, livestock raising in the Mountain region), developmental intensification along major roads, development of growth and service centers, and integrated rural development (Table 45). But as in the case of population policy, regional development policies within national development plans were not integrated with programs and projects. Thus, with the exception of integrated rural development (IRD) projects, based on external assistance, there were no specific implementation programs to support the policies adopted. The process of resource allocation persisted among the traditional activity sectors (agriculture and forest, transport and communication, industry and power, and social services) despite the policy goal of reducing disparity among the regions.

The increasing volume of out-migration from the highlands suggests the continuing morbidity of the highland economy despite three decades of development effort. Integrated rural development projects (covering 18 highland and 5 lowland districts) were designed to provide coordinated provision of infrastructure and service in rural areas and reduce rural-to-urban migration. The available document on IRD projects (Pradhan 1985), however, is only a comparative progress review of programs rather than an impact evaluation. Even in the case of specific IRD projects for which some evaluation data are available, the rate of net migration was unaffected (Banskota 1984:118–20).

Spatial planning is a long-term strategy that is closely linked with infrastructure development. In Nepal, the pattern of arterial routes has changed considerably over the last two decades. The series of north–south roads has now been superseded by the east–west highway (Mahendra Rajmarg). In spatial planning terms, the east–west highway should be the spine of national development with the connecting north–south roads as its lateral extension. Concentration of development activities along the east–west highway will also help to resolve the conflict in resource allocation between the Hill and Tarai regions. Since the highway traverses parts of the Tarai and Inner Tarai with sparse population and extensive forest land, the convergence of population from the highlands and lowlands there through planned migration would contribute to economic and social integration.

Recognition of the east–west highway as the pivotal axis of national development will also entail reconsideration of other policy areas such as land use, resettlement, and urbanization. The forests in the lowlands have a bleak future because of their increasing accessibility and the immense population pressure evidenced by large-scale encroachment (Kaplan and Shrestha 1982). Conservation of forests for environmental purposes would be more meaningful in the highlands with its steep, erosion-prone slopes. Therefore lowland forest areas with agricultural potential need to be resettled in order to ensure optimum utilization of the limited land resource. Such a land-use policy would yield considerable land for resettlement and agricultural expansion, particularly in Western Tarai (Appendix Table 3). Again, selected points where the east–west highway intersects with north–south roads would be the most appropriate sites for urban development. Locating administrative, commercial, and industrial activities at these major road junctions would maximize benefits from the significant investment in infrastructure and create new employment opportunities.

Political Dimension

The volume of internal migration indicates the extent of regional economic disparity; if properly channeled, it can be an effective mechanism for adjusting population and resources as well as affecting national integration. In contrast, international migration involving unrestricted emigration and immigration, as in the case of Nepal, can be detrimental to the national interest (Weiner 1985). While emigration weakens the state's leverage for an independent policy on immigration control, large-scale immigration renders the government's protectionist policies in labor and employment ineffective.

The Tarai, the prime destination of immigrants, has been an area of controversy over citizenship (Gaige 1975:82–107). Indeed, there has been increasing pressure for citizenship in recent years. Of the total 1.5 million citizenship certificates distributed during 1972–82, the Tarai districts claimed 63.2 percent. In terms of the total population in 1981, those receiving citizenship certificates constituted 10 percent. In terms of the 1981 population by region, those receiving citizenship certificates for the Tarai constituted 15.7 percent and those for the Hill and Mountain regions 5.5 percent each. It is significant that 94.4 percent of those acquiring Nepalese citizenship in the Tarai did so on the basis of descent. A survey of 5,651 households in 10 Tarai districts indicated that of the total sampled household heads, 6.9 percent were immigrants (Nepal, TFM, 1983). Of all immigrant household heads, 94.3 percent were from India; of these, 42.3 percent had acquired Nepalese citizenship.

Another dimension to the politics of citizenship is the deteriorating situation of emigrants from Nepal to India. The armed conflict for "Gorkha land" by Nepali-language speakers in the hill areas (Darjeeling and Kalimpong) of West Bengal since 1986 and the recent wholesale expulsion of settlers of Nepalese origin from Assam and Meghalaya have generated a stream of return migrants into Nepal. Recent events in north-eastern India also prove that nativist policies which are weak in immigration control but restrictive in naturalization have all the makings of a larger sociopolitical conflict. The main cause of Indo-Nepal migration is the unrestricted entry and exit rules between the two countries. Illegal trade associated with the free movement of people across the border has been a matter of concern for both countries. Similarly, policies and programs aimed at restricting Nepal's population problem and the planning of population redistribution will have limited impact until the Indo-Nepal border is regulated in terms of human movement.

APPENDIX TABLES

Appendix Table 2. Area, population, growth rate and density by district: 1981

Region/district	Area[a] (km^2)	Population[b] 1971	1981	Annual growth rate, 1971–81 (%)	Density 1981 (persons/km^2)
Mountain	49,275	955,980	1,070,570	1.14	21.7
West	29,283	452,050	531,363	1.67	18.1
Darchula	2,322	75,077	90,218	1.85	38.9
Bajhang	3,422	108,590	124,010	1.34	36.2
Bajura	2,188	61,323	74,649	1.99	34.1
Humla	5,655	26,750	20,303	-2.72	3.6
Mugu	3,535	28,476	43,705	4.37	12.4
Kalikot	1,741	73,110	87,638	1.83	50.3
Jumla	2,531	59,620	68,797	1.44	27.2
Dolpo	7,889	19,104	22,043	1.44	2.8
Central	7,363	56,606	50,192	-1.20	6.8
Mustang	3,573	13,567	12,930	-0.48	3.6
Manang	2,246	7,434	7,021	-0.57	3.1
Rasuwa	1,544	35,605	30,241	-1.62	19.6
East	12,629	447,324	489,015	0.90	38.7
Dolakha	2,192	133,861	150,576	1.18	68.7
Solu-Khumbu	3,481	81,547	88,245	0.79	25.4
Sankhuwa Sabha	3,646	118,928	129,414	0.85	35.5
Taplejung	3,312	112,988	120,780	0.67	36.5
Hill	54,456	5,678,734	6,642,324	1.43	122.0
West	18,021	1,282,954	1,480,505	1.44	82.2
Dadeldhura	1,538	60,517	86,853	3.68	56.5
Baitadi	1,519	156,608	179,136	1.35	117.9
Doti	2,025	127,460	153,135	1.85	75.6
Achham	1,680	163,547	185,212	1.25	110.2
Dailekh	1,502	150,351	166,527	1.03	110.9
Jajarkot	2,230	86,538	99,312	1.39	44.5
Salyan	1,462	105,210	132,432	2.33	90.6
Rukum	2,877	123,490	152,063	2.10	52.9
Rolpa	1,879	162,906	168,166	0.32	89.5
Pyuthan	1,309	146,327	157,669	0.75	120.4
Central	21,366	2,167,684	2,597,316	1.82	121.6
Myagdi	2,297	83,917	96,904	1.45	42.2
Baglung	1,784	164,100	215,228	2.75	120.6
Parbat	494	114,454	128,400	1.16	259.9
Gulmi	1,149	220,874	238,113	0.75	207.2
Argha Khanchi	1,193	130,174	157,304	1.91	131.9

Appendix Table 2 *(continued)*

Region/district	Area[a] (km^2)	Population[b]		Annual growth rate, 1971–81 (%)	Density 1981 (persons/km^2)
		1971	1981		
Palpa	1,373	178,868	214,442	1.83	156.2
Syangja	1,164	249,513	271,824	0.86	233.5
Kaski	2,017	164,540	221,272	3.01	109.7
Tanahun	1,546	166,806	223,438	2.97	144.5
Lamjung	1,692	125,451	152,720	1.98	90.3
Gorkha	3,610	188,164	231,294	2.09	64.1
Dhading	1,926	213,016	243,401	1.34	126.4
Nuwakot	1,121	167,807	202,976	1.92	181.1
Kathmandu Valley	899	607,377	766,345	2.35	852.4
Kathmandu	395	342,302	422,237	2.12	1,069.0
Lalitpur	385	142,792	184,341	2.59	478.8
Bhaktapur	119	122,283	159,767	2.71	1,342.6
East	14,170	1,620,719	1,798,158	1.04	126.9
Sindhu-palchok	2,542	208,534	232,326	1.09	91.4
Kabhre-palanchok	1,396	242,754	307,150	2.38	222.0
Ramechhap	1,546	155,172	161,445	0.40	104.4
Okhaldhunga	1,074	123,887	137,640	1.06	128.2
Khotang	1,591	200,023	212,571	0.61	133.6
Bhojpur	1,507	177,833	192,689	0.80	127.9
Dhankuta	891	110,395	129,781	1.63	145.6
Terhathum	679	90,972	92,454	0.16	136.2
Panchthar	1,241	145,765	153,746	0.53	123.9
Ilam	1,703	165,384	178,356	0.76	104.7
Inner Tarai	14,604	908,884	1,279,081	3.48	87.6
West	5,406	291,297	432,589	4.03	80.0
Surkhet	2,451	104,790	166,196	4.72	67.8
Dang-Deokhuri	2,955	186,507	266,393	3.63	90.1
Central	4,644	353,307	502,982	3.60	108.3
Chitawan	2,218	183,588	259,571	3.52	117.0
Makwanpur	2,426	169,719	243,411	3.67	100.3
East	4,554	264,280	343,510	2.66	75.4
Sindhuli	2,491	148,954	183,705	2.12	73.7
Udayapur	2,063	115,326	159,805	3.32	77.5
Tarai	28,846	4,012,385	6,030,864	4.16	209.1
West	9,207	438,041	831,243	6.62	90.3
Kanchanpur	1,610	68,842	168,971	9.39	105.0

Appendix Table 2 *(continued)*

Region/district	Area[a] (km²)	Population[b] 1971	Population[b] 1981	Annual growth rate, 1971–81 (%)	Density 1981 (persons/km²)
Kailali	3,235	135,982	257,905	6.61	79.7
Bardiya	2,025	102,741	199,044	6.84	98.3
Banke	2,337	130,476	205,323	4.64	87.9
Central	5,260	632,401	957,969	4.24	182.1
Kapilvastu	1,738	205,154	270,045	2.79	155.4
Rupandehi	1,360	243,272	379,096	4.54	278.7
Nawal Parasi	2,162	183,975	308,828	5.32	142.8
East	14,379	2,941,943	4,241,652	3.73	295.0
Parsa	1,353	202,062	284,338	3.47	210.2
Bara	1,190	233,330	318,957	3.18	268.0
Rautahat	1,126	256,238	332,526	2.64	295.3
Sarlahi	1,259	265,634	398,766	4.15	316.7
Mahotari	1,002	298,346	361,054	1.93	360.3
Dhanusa	1,180	330,501	432,569	2.73	366.6
Siraha	1,188	302,212	375,358	2.19	316.0
Saptari	1,363	292,108	379,055	2.64	278.1
Sunsari	1,257	238,312	344,594	3.76	274.1
Morang	1,855	293,639	534,692	6.18	288.2
Jhapa	1,606	229,561	479,743	7.65	298.7
Nepal	147,181	11,555,983	15,022,839	2.66	102.1

Note: The district population for 1971 has been adjusted according to the boundary changes effected by the second amendment of the Constitution of Nepal in December 1975.

a. Nepal, Survey Department, Topographical Survey Branch.

b. Nepal, CBS (1975, 1984).

Appendix Table 1. Change in population by geographic region: 1952/54–1981

	1952/54[a]		1961		Change 1952/54–61		1971[b]	
Geographic region	Number	%	Number	%	Number	%	Number	%
Mountain and Hill	5,356,873	64.9	5,991,297	63.6	634,424	11.8	6,634,714	57.4
West	1,483,946[c]	18.0	1,698,083[d]	18.0	214,137	14.4	1,735,004	15.0
Central	1,753,116	21.2	1,946,502	20.7	193,386	11.0	2,224,290	19.2
Kathmandu Valley	410,995	5.0	459,990	4.9	48,995	11.9	607,377	5.3
East	1,708,816	20.7	1,886,722	20.0	177,906	10.4	2,068,043	17.9
Inner Tarai	493,936	6.0	518,685	5.5	24,749	5.0	908,884	7.9
West	123,150[e]	1.5	98,607[f]	1.0	nc		291,297	2.5
Central	181,558	2.2	226,412[g]	2.4	44,854	24.7	353,307	3.1
East	189,228	2.3	193,666	2.1	4,438	2.3	264,280	2.3
Tarai	2,405,816	29.1	2,903,014	30.8	497,198	20.7	4,012,385	34.7
West	235,189	2.8	271,551	2.9	36,362	15.5	438,041	3.8
Central	364,578	4.4	418,181[h]	4.4	53,603	14.7	632,401	5.5
East	1,806,049	21.9	2,213,282	23.5	407,233	22.5	2,941,943	25.4
Nepal	8,256,625	100.0	9,412,996	100.0	1,156,371	14.0	11,555,983	100.0

Sources: Nepal, DOS (1957); Nepal, CBS (1967, 1975, 1984).

Note: See Figure 2.

nc—not comparable.

a. Population present. The 1952/54 census does not give population present for Surkhet (total population 34,939). Population present of six districts for 1952/54 census was revised in 1961 census.

b. District boundaries adjusted according to the changes in 1975.

c. Including Charkabhot subunit of Baglung, now named Dolpo.

Appendix Table 1 *(continued)*

	Change 1961–71		1981		Change 1971–81		Change 1952/54–1981	
Geographic region	Number	%	Number	%	Number	%	Number	%
Mountain and Hill	643,417	10.7	7,712,894	51.3	1,078,180	16.3	2,356,021	44.0
West	36,921	2.2	2,011,868	13.4	276,864	16.0	527,922	35.6
Central	277,788	14.3	2,647,508	17.6	423,218	19.0	894,392	51.0
Kathmandu Valley	147,387	32.0	766,345	5.1	158,968	26.2	355,350	86.5
East	181,321	9.6	2,287,173	15.2	219,130	10.6	578,357	33.8
Inner Tarai	390,199	75.2	1,279,081	8.5	370,197	40.7	785,145	159.0
West	nc		432,589	2.9	141,292	48.5	309,439	251.3
Central	126,895	56.0	502,982	3.3	149,675	42.4	321,424	177.0
East	70,614	36.5	343,510	2.3	79,230	30.0	154,282	81.5
Tarai	1,109,371	38.2	6,030,864	40.1	2,018,479	50.3	3,625,048	150.7
West	166,490	61.3	831,243	5.5	393,202	89.8	596,054	253.4
Central	214,220	51.2	957,969	6.4	325,568	51.5	593,391	162.8
East	728,661	32.9	4,241,652	28.2	1,299,709	44.2	2,435,603	134.9
Nepal	2,142,987	22.8	15,022,839	100.0	3,466,856	30.0	6,766,214	81.9

d. Including Surkhet aggregated with Dailekh.

e. Including Surkhet.

f. Dang only, excluding Surkhet.

g. Excluding Nawalpur.

h. Including Nawalpur.

REFERENCES

Abeysekera, Dayalal S. D. J.

1984 Rural to rural migration in Sri Lanka. In Calvin Goldscheider, ed., *Rural Migration in Developing Nations: Comparative Perspectives on Korea, Sri Lanka, and Mali*, pp. 109–207. Boulder: Westview Press.

Asian Development Bank

1982 *Nepal Agricultural Strategy Study.* 2 vols. Manila: Asian Development Bank; Kathmandu: His Majesty's Government of Nepal.

Banister, Judith, and Shyam Thapa

1981 *The Population Dynamics of Nepal.* Papers of the East-West Population Institute, no. 78. Honolulu: East-West Center.

Banskota, Mahesh

1984 Rural development and migration: An evaluation of Rasuwa Nuwakot development project. In J. F. X. Paiva and Tunku Shamsul Bahrin, eds., *Rural Migration Policies and Development*, pp. 96–121. Kuala Lumpur: Asian and Pacific Development Centre.

Bucksmann, P. E.

1980 Migration and land as aspects of underdevelopment: An approach to agricultural migration in Bolivia. In Paul White and Robert Woods, eds., *The Geographical Impact of Migration*, pp. 108–28. London: Longman.

Caplan, Lionel

1970 *Land and Social Change in East Nepal: A Study of Hindu-Tribal Relations.* Berkeley: University of California Press.

Conway, Dennis, and Nanda R. Shrestha

1981 *Causes and Consequences of Rural-to-Rural Migration in Nepal.* Bloomington: Department of Geography, Indiana University.

Dahal, Dilli R., Navin K. Rai and Andrew E. Manzardo

1977 *Land and Migration in Far Western Nepal.* Kirtipur: Institute of Nepal and Asian Studies, Tribhuvan University.

Davis, Kingsley

1968 *The Population of India and Pakistan.* New York: Russell & Russell.

Dixon, John Alexander

1977 Some economic aspects of rural to rural migration and land settlement in East Asia. Unpublished Ph.D. dissertation, Harvard University, Department of Economics.

Dozier, Craig L.

1969 *Land Development and Colonization in Latin America: Case Studies of Peru, Bolivia, and Mexico.* New York: Praeger.

Economic and Social Commission for Asia and the Pacific (ESCAP)

1976 *Population of Sri Lanka.* ESCAP Country Monograph Series, No. 4. Bangkok: ESCAP, United Nations.

Elder, Joseph W., M. Ale, M. A. Evans, P. P. Gillespie, R. K. Nepali, S. P. Poudyal, and B. P. Smith

1976 *Planned Resettlement in Nepal's Terai: A Social Analysis of the Khajura/Bardia Punarvas Projects.* Kathmandu: Institute of Nepal and Asian Studies, Centre for Economic Development and Administration; Madison: Department of Sociology, University of Wisconsin.

Farmer, Bertram H.

1957 *Pioneer Peasant Colonization in Ceylon: A Study in Asian Agrarian Problems.* London: Oxford University Press.

1974 *Agricultural Colonization in India Since Independence.* London: Oxford University Press.

Fuchs, Roland J.

1983 *Population Distribution Policies in Asia and the Pacific: Current Status and Future Prospects.* Papers of the East-West Population Institute, no. 83. Honolulu: East-West Center.

Furer-Haimendorf, Christoph von

1975 *Himalayan Traders: Life in Highland Nepal.* London: John Murray.

Gaige, Frederick H.

1975 *Regionalism and National Unity in Nepal.* Berkeley: University of California Press.

Goldscheider, Calvin

1983 Modernization, migration, and urbanisation. In Peter A. Morrison, ed., *Population Movements: Their Forms and Functions in Urbanisation and Development,* pp. 47-66. Liege: Ordina Editions.

Goldstein, Sidney

1976 Facets of redistribution: Research challenge and opportunities. *Demography* 13:423-34.

Grigg, D. B.

1980a Migration and overpopulation. In Paul White and Robert Woods, eds., *The Geographical Impact of Migration,* pp. 60-83. London: Longman.

1980b *Population Growth and Agricultural Change: An Historical Perspective.* Cambridge, Eng.: Cambridge University Press.

Gurung, Harka

1969 *Regional Development Planning for Nepal.* Kathmandu: National Planning Commission, His Majesty's Government [of Nepal].

1971 Landscape pattern of Nepal. *Himalayan Review* 4:1-10.

1975 Population aspect of development. In Daya C. Upadhaya and Jose V. Abueva, eds., *Population and Development in Nepal,* pp. 23–42. Kirtipur: Centre for Economic Development and Administration, Tribhuvan University.

1981 Population increase in Nepal, 1971–81. *Himalayan Review* 13:1–22.

1984a *Nepal: Dimensions of Development.* Kathmandu: Sahayogi Press.

1984b Migration and development. In Harka Gurung, *Nepal: Dimensions of Development,* pp. 225–45. Kathmandu: Sahayogi Press.

1984c Food systems and society. In Harka Gurung, *Nepal: Dimensions of Development,* pp. 161–88. Kathmandu: Sahayogi Press.

India, Office of the Registrar General and Census Commissioner (ORGCC)

1954 *Census of India 1951.* Series I—India, Population Classified by Place of Birth. New Delhi: Office of the Registrar General and Census Commissioner.

1964 *Census of India 1961.* Series I—India, Population Classified by Place of Birth. New Delhi: Office of the Registrar General and Census Commissioner.

1976 *Census of India 1971.* Series I—India. Special Monograph no. 1. Birth Place Migration in India, Section III: Population Classified by Place of Birth. New Delhi: Office of the Registrar General and Census Commissioner.

1984 *Census of India 1981.* Series I—India, Part II Special: Report and Tables Based on 5 percent Sample Data. New Delhi: Office of the Registrar General and Census Commissioner.

India, *The Economic Times*

1982 Indians abroad: Concentration in four countries. *Economic Times* (New Delhi) 9(143), 6 August.

India, *The Sunday Statesman*

1982 It's Indians the world over. *The Sunday Statesman* (New Delhi), 6 June.

Joshi, R. M., and M. K. Khatiwada

1986 *Agricultural Handbook: Nepal, 1986.* Kathmandu: Agricultural Publication Series.

K. C., Bal Kumar

1985 The rural to rural migration in Nepal. *Occasional Papers in the Humanities and Social Sciences,* vol. 2, pp. 1–26.

Kansakar, Vidya Bir Singh

1974 Population change in Nepal: A study of mobility during 1911–1961. Unpublished Ph.D. dissertation, Patna University, Department of Geography.

1979 *Effectiveness of Planned Resettlement Programme in Nepal.* Vol. I: Text; Vol. II: Statistical Tables. Kirtipur: Centre for Economic Development and Administration, Tribhuvan University.

1983 Population distribution policies and planned resettlement in Nepal. In A. S. Oberoi, ed., *State Policies and Internal Migration: Studies in Market and Planned Economies*, pp. 229–50. New York: St. Martin's Press.

Kaplan, P. F., and N. R. Shrestha

1982 The sukumbasi movement in Nepal: The fire from below. *The Journal of Contemporary Asia* 12(1):75–88.

Karki, Y. B.

1984 *Estimates of Total Fertility Rates for Nepal and Its Geographical Sub-divisions and Administrative Zones, 1971 and 1981.* Kathmandu: National Commission on Population.

Kenting Earth Sciences

1986a *Land Resources Mapping Project: Economics Report.* Kathmandu: His Majesty's Government of Nepal; Canadian International Development Agency.

1986b *Land Resources Mapping Project: Land Utilization Report, Appendices One to Ten.* Kathmandu: His Majesty's Government of Nepal; Canadian International Development Agency.

Kosinski, Leszek A., and R. Mansell Prothero, eds.

1975 *People on the Move: Studies on Internal Migration.* London: Methuen.

Lee, Everett S.

1969 A theory of migration. In John A. Jackson, ed., *Migration*, pp. 282–97. London: Cambridge University Press.

Mabogunje, Akin L.

1981 Objectives and rationales for regional population redistribution in developing countries. In *Population Distribution Policies in Development Planning.* Population Studies, no. 75. New York: United Nations.

Macfarlane, Alan

1976 *Resources and Population: A Study of [illegible]e Gurungs of Nepal.* London: Cambridge University Press.

Martine, George

1975 Volume, characteristics and consequences of internal migration in Colombia. *Demography* 12(2):193–208.

McDougal, Charles

1968 *Village and Household Economy in Far Western Nepal.* Kirtipur: Tribhuvan University.

Myrdal, Gunnar

1968 *Asian Drama: An Inquiry into the Poverty of Nations.* 3 vols. New York: Pantheon.

Naya, Seiji

1982 Asian and Pacific development performance and issues. *Asian Development Review* 1(1):1–40.

Nepal, Central Bureau of Statistics (CBS)

1967 *Results of the Census of Population 1961.* 3 vols. Kathmandu: Central Bureau of Statistics.

1975 *Census of Population 1971.* 5 vols. Kathmandu: Central Bureau of Statistics.

1977 *The Analysis of the Population Statistics of Nepal.* Kathmandu: Central Bureau of Statistics.

1981 *Census of Manufacturing Establishments, 1976–77.* Kathmandu: Central Bureau of Statistics.

1984 *Population Census 1981.* 4 vols., 9 pts. Kathmandu: Central Bureau of Statistics.

1985a *Census of Manufacturing Establishments, 1982/83.* Kathmandu: Central Bureau of Statistics.

1985b *Intercensal Changes of Some Key Census Variables, Nepal, 1952/54–81.* Vol. 1. Kathmandu: Central Bureau of Statistics.

1986a *Intercensal Changes of Some Key Census Variables, Nepal, 1952/54–81.* Vol. 2. Kathmandu: Central Bureau of Statistics.

1986b *Population Projection of Nepal (Total and Sectoral), 1981–2001.* Kathmandu: Central Bureau of Statistics.

1987 *Population Monograph of Nepal.* Kathmandu: Central Bureau of Statistics.

1988 *Migration Statistics from Demographic Sample Survey, 1986/87.* Kathmandu: Central Bureau of Statistics.

Nepal, Department of Resettlement

1973 *Punarvas Ra Abyawasthit Basobas Niyantran Sambandhi Yojana Ra Karyakarm* [Plan and program regarding resettlement and control of illegal settlement]. Kathmandu: Food and Agriculture Ministry.

Nepal, Department of Statistics (DOS)

1957 *Census of Population, 1952/54.* (In Nepali.) Kathmandu: Department of Statistics. (The English version was published in 1958 with less detailed data.)

Nepal, Food and Agriculture Ministry (FAM)

1972 *Agriculture Statistics of Nepal.* Kathmandu: Agricultural Statistics Division.

1983 *Agriculture Statistics of Nepal, 1983.* Kathmandu: Agricultural Statistics Division.

Nepal, Foreign Ministry

1961 *Protocol with Regard to the Sino-Nepal Boundary Agreement, 1961.* Kathmandu and Peking.

Nepal, Forest Ministry

1976 *Rastriya Ban Yojana* [National forest policy]. (In Nepali.) Kathmandu: His Majesty's Government of Nepal.

Nepal, Forest Resources Survey (FRS)

1967 *Forest Statistics for the Tarai and Adjoining Regions.* Kathmandu: Department of Forests.

Nepal, National Commission on Population (NCP)

1983a *National Population Strategy.* Kathmandu: National Commission on Population.

1983b Estimate of net immigrants based on the 1971 and the 1981 censuses of Nepal. Unpublished manuscript. Kathmandu: National Commission on Population.

1984 *Inter-Regional Migration in Nepal: Problems and Prospects.* Kathmandu: National Commission on Population. (Based on a study report prepared by New ERA in 1981.)

Nepal, National Planning Commission (NPC)

1970 *The Fourth Plan (1970–75).* Kathmandu: National Planning Commission.

1974 *Draft Report on Land Use and Erosion Central.* Report of the Task Force. Kathmandu: National Planning Commission.

1975 *The Fifth Plan (1975–80).* Kathmandu: National Planning Commission.

1980 *The Sixth Plan (1980–85).* Kathmandu, National Planning Commission.

1983 *A Survey of Employment, Income Distribution and Consumption Patterns in Nepal.* Kathmandu: National Planning Commission.

1985 *The Seventh Plan (1985–1990).* Kathmandu: National Planning Commission.

1987 *State of Regional Development.* Mimeographed report in Nepali. Kathmandu: National Planning Commission.

Nepal, Task Force on Migration (TFM)

1983 *Internal and International Migration in Nepal.* 4 vols. (In Nepali with English summary.) Kathmandu: National Commission on Population.

Ng, R. C. Y.

1975 Internal migration in Southeast Asian countries. In Leszek A. Kosinski and R. Mansell Prothero, eds., *People on the Move: Studies on Internal Migration,* pp. 181-92. London: Methuen.

Ojha, Durga P.

1983 History of land settlement in Nepal Tarai. *Contributions to Nepalese Studies* 11(1)(December 1983):21–44.

Poffenberger, Mark

1980 *Patterns of Change in the Nepal Himalaya.* Delhi: Macmillan.

Pradhan, Bharat B.

1985 *Integrated Rural Development Projects in Nepal: A Review.* Kathmandu: International Centre for Integrated Mountain Development.

Rana, Ratna S. J. B., and Yadab S. Thapa

1975 Population migration nature and scope. In Daya C. Upadhaya and Jose V. Abueva, eds. *Population and Development in Nepal,* pp. 43–77. Kirtipur: Centre for Economic Development and Administration, Tribhuvan University.

Regmi, Mahesh C.

1971 *A Study in Nepali Economic History, 1768–1846.* New Delhi: Manjusri.

Sen Gupta, P.

1970 Population and resource development in India. In Wilbur Zelinsky, Leszek A. Kosinski, and R. Mansell Prothero, eds. *Geography and a Crowding World,* pp. 424–41. New York: Oxford University Press.

Shrestha, Nanda R.

1982 A preliminary report on population pressure and land resources in Nepal. *Journal of Developing Areas* 16(January):197–212.

Shrestha, R. K. and Pitamber Sharma, eds.

1980 *Nepal: Atlas of Economic Development.* Kathmandu: National Council for Science and Technology.

Simmons, Ozzie G.

1983 *Development Perspectives and Population Change.* Papers of the East-West Population Institute, no. 85. Honolulu: East-West Center.

Stiller, Ludwig F. S. J.

1973 *The Rise of the House of Gorkha: A Study in the Unification of Nepal, 1768–1816.* New Delhi: Manjusri.

Todaro, Michael P.

1976 *Internal Migration in Developing Countries: A Review of Theory, Evidence, Methodology and Research Priorities.* Geneva: International Labour Office.

United Nations

1981 *Population Distribution Policies in Development Planning: Papers of the UN/UNFPA Workshop in Development Planning,* Bangkok, 4–13 September 1979. Population Studies, no. 75. New York: United Nations.

Varma, Siddheswar

1972–73 *G. A. Grierson's Linguistic Survey of India: A Summary.* Pt. 1 (1972) and pt. II (1973). Hoshiarpur: Vishveshvaranand Institute, Panjab University.

Weiner, Myron

1973 The political demography of Nepal. *Asian Survey* 13(6):617–30.

1978 *Sons of the Soil: Migration and Ethnic Conflict in India.* Princeton: Princeton University Press.

1985 On international migration and international relations. *Population and Development Review* 2(3)(September):441–45.

White, Paul, and Robert Woods, eds.

1980 *The Geographical Impact of Migration.* London: Longman.

Wikkramatileke, R.

1965 State aided rural land colonization in Malaya: An appraisal of the FLDA program. *Annals of the Association of American Geographers* 55:337–403.

World Bank

1974 *Agriculture Sector Survey of Nepal.* 2 vols. Report no. 519a-NEP. Washington, D. C.: IBRD.

1979 *Nepal: Agriculture Sector Review.* Report no. 2205-NEP. Washington, D. C.: IBRD.

1988 *World Development Report 1988.* Washington, D. C.: IBRD.

Zelinsky, Wilbur

1983 The impasse in migration theory: A sketch map for potential escapees. In Peter A. Morrison, ed., *Population Movements: Their Forms and Functions in Urbanisation and Development,* pp. 19–46. Liège: Ordina Editions.

Zelinsky, Wilbur, Leszek A. Kosinski, and R. Mansell Prothero, eds.

1970 *Geography and a Crowding World.* New York: Oxford University Press.

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Appendix Table 3. Basic land-use categories by geographic region: 1978-79

	Agricultural land											
	Cultivated		Noncultivated		Grazing land		Forest land		Other land		Total	
Region	(ha.)	(%)	(ha.)	(%)	(ha.)	(%)	(ha.)	(%)	(ha.)	(%)	(ha.)	(%)
Mountain	234,363	7.9	126,811	12.8	1,118,061	63.6	1,361,248	21.6	2,097,640	76.8	4,938,123	33.5
West	111,979	3.8	63,281	6.4	743,643	42.3	751,748	11.9	1,276,673	46.8	2,947,324	20.0
Central	11,839	0.4	5,086	0.5	220,734	12.6	89,944	1.4	399,152	14.6	726,755	4.9
East	110,545	3.7	58,444	5.9	153,684	8.7	519,556	8.2	421,815	15.5	1,264,044	8.6
Hill	1,167,979	39.3	628,246	63.7	543,216	30.9	2,680,172	42.5	441,736	16.2	5,461,349	37.0
West	312,250	10.5	166,258	16.8	211,877	12.1	1,024,002	16.2	88,427	3.2	1,802,814	12.2
Central	431,288	14.5	251,998	25.5	255,152	14.5	933,824	14.8	281,154	10.3	2,153,416	14.6
Kathmandu Valley	40,072	1.4	11,872	1.2	479	0.0	36,426	0.6	3,636	0.1	92,485	0.6
East	384,369	13.0	198,118	20.1	75,708	4.3	685,920	10.9	68,519	2.5	1,412,634	9.6
Inner Tarai	266,727	9.0	92,432	9.4	41,162	2.3	1,002,050	15.9	53,392	2.0	1,455,763	9.9
West	104,521	3.5	28,463	2.9	23,303	1.3	375,128	5.9	14,940	0.5	546,355	3.7
Central	87,656	3.0	27,280	2.8	13,553	0.8	309,875	4.9	20,166	0.7	458,530	3.1
East	74,550	2.5	36,689	3.7	4,306	0.2	317,047	5.0	18,286	0.7	450,878	3.1
Tarai	1,298,948	43.8	139,409	14.1	54,906	3.1	1,262,990	20.0	136,816	5.0	2,893,069	19.6
West	218,348	7.4	30,714	3.1	20,107	1.1	626,037	9.9	32,798	1.2	928,004	6.3
Central	238,305	8.0	23,598	2.4	6,244	0.4	232,070	3.7	18,441	0.7	518,658	3.5
East	842,295	28.4	85,097	8.6	28,555	1.6	404,883	6.4	85,577	3.1	1,446,407	9.8
Nepal	2,968,017	100.0	986,898	100.0	1,757,345	100.0	6,306,460	100.0	2,729,584	100.0	14,748,304	100.0
Row %	20.1		6.7		11.9		42.8		18.5		100.0	

Source: Kenting Earth Sciences (1986a: app. 5).

ha.—hectares

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ABSTRACT This study provides a detailed portrait of a large, representative group of recent Korean immigrants to the United States—their backgrounds before immigration, their demographic and socioeconomic characteristics, their family networks, and their plans, perceptions, and hopes regarding life in the United States. The analysis, which is based on scientifically selected samples of adult Koreans who were issued immigrant visas in 1986, reveals the demographic and human resource characteristics of this cohort and the relationships between those characteristics and U.S. immigration policy. Other topics examined include expectations about various aspects of life in the United states, comparisons of the United States and Korea on a number of important place dimensions, the role of family networks in the immigration process, and the factors related to occupational choices, including entrepreneurship.

The report is based on the analysis of two surveys that are part of a larger comparative, longitudinal study of Korean and Filipino immigrants. The main study analyzed here is the Korean Immigrant Pre-Departure Assessment (IPDA) Survey, which entailed face-to-face interviews in Seoul with 1,834 new immigrants. The IPDA interviews were conducted just after an immigrant visa had been issued by the U.S. Embassy. The Status Adjusters Survey (SAS) involved Koreans already in the United States on nonimmigrant visas who "adjusted" to immigrant status in 1986. A total of 549 adult Koreans participated in this mail survey.

The data collected in these two surveys are analyzed here on the basis of their intrinsic value for characterizing a significant group of recent immigrants, for example, for showing their diversity and discussing that finding in relation to immigration policy goals. The same data will be used in future reports as a baseline against which to measure changes occurring to this cohort of immigrants at different stages of their experience in the United States, as revealed through longitudinal follow-up surveys that are under way.

The heavy recent flow of Korean immigrants to the United States should be viewed in relation to the remarkable structural changes in the economy of the Republic of Korea over the past several decades. From 1945 until about 1960, Korea experienced severe economic and political difficulties. The economy depended heavily upon U.S. aid, and the Korean War (1950–53) was very destructive. Since 1960, however, the economy has recorded a spectacular expansion, with the gross national product averaging more than an 8 percent annual growth rate. During the past 30 years, Korea has been transformed from a primarily agrarian economy into a rapidly industrializing urban society characterized by export-led industries depending on low-wage labor.

The transformation has been so swift that in the span of one generation, observers could witness two different Koreas. Less than one-fourth of the total population resided in cities in 1955, compared with almost two-thirds in 1985 (R.O.K., National Bureau of Statistics, 1959, 1987b). Per capita income rose from US $87 in 1962 to $2,296 in 1986. The proportion of the population enrolled in secondary schools rose from 27 percent in 1960 to 80 percent in 1985.

In the midst of these structural changes, more than 600,000 Koreans emigrated to foreign countries from 1962 to 1985 (Illsoo Kim 1984; Lee 1987; unpublished data, Republic of Korea, Ministry of Foreign Affairs, Emigration Bureau, 1986). Over 80 percent of them (or more than 500,000 Koreans) immigrated to the United States. Since the passage of the 1965 amendments to the U.S. Immigration and Nationality Act, Korea has sent to the United States one of the largest streams of immigrants. In 1987, Korea ranked third among legal immigrant flows to the United States (after Mexico and the Philippines), with 35,849 new admissions (U.S., Immigration and Naturalization Service, 1988).

With regard to the "stock" of Korean Americans, there were only about 70,000 Korean residents in the United States in 1970. Since then the number has increased very rapidly. In 1980, the census counted 357,393 Korean Americans (U.S., Bureau of the Census, 1983). A more recent estimate is around 700,000 (Hurh 1987), reflecting a tenfold increase over an 18-year period. About 80 percent of Korean Americans enumerated in the 1980 census were immigrants (i.e., foreign-born) and about two-thirds of them were "recent" immigrants who came to the United States after 1970 (Xenos et al. 1987). The Korean population in the United States is projected to increase to over 1.3 million by the year 2000 (Bouvier and Agresta 1987), at which time Koreans are expected to rank fourth among Asian American groups, after Filipinos, Chinese, and Vietnamese.

The massive immigration of Koreans has potentially important implications for Korea as well as for the United States, but data are scanty regarding effects on both the sending and receiving societies. From the perspective of the United States, for example, many questions have been raised about national and community-level labor market impacts of immigrant workers, including Koreans; these questions remain only partially answered because of the failure of various data systems in the United States to collect appropriate information about immigrants (U.S., General Accounting Office, 1988; Levine, Hill, and Warren 1985). The U.S. Immigration and Naturalization Service (INS) does not collect any information about the educational qualifications of immigrants, and the data that INS tabulates on occupations of immigrants are of questionable value because they come from various sources with different meanings.

Some policy questions, as well as important theoretical propositions, have been addressed by specialized surveys of particular segments of the Korean American population. Major studies have been done of Korean Americans in Los Angeles (Yu, Phillips, and Yang 1982; Light and Bonacich 1988), New York (Illsoo Kim 1981), Chicago (Hurh, Kim, and Kim 1978; Hurh and Kim 1987), and Atlanta (Min 1988), for example. Generally speaking, these studies have focused on the economic adaptation of Korean immigrants, with particular attention to entrepreneurship, and on the immigrants' personal adjustment within and outside of ethnic enclaves in urban America. Such studies have added enormously to our knowledge and understanding of the recent wave of Korean immigrants. Because of their restricted sampling bases, however, and because they have been one-time cross-sectional studies, it is not possible to generalize from most of these studies to a larger population, and they provide only limited insight into changes occurring over time.

In making general statements about human resources and other characteristics of recent cohorts of Korean immigrants, the analyst must rely primarily on data collected by the U.S. census at 10-year intervals. Census data have severe limitations for immigration studies, however, especially with respect to evaluating the effects of immigration policies. A major problem with data from the census and from virtually all large-scale government surveys that include immigrants is that they do not contain information on the type of visa under which a foreign-born person entered the United States (or whether the person was legally admitted). Although the census and other large-scale data sets provide contextual data and valuable comparisons between foreign-born and native-born workers, census analyses cannot distinguish between foreign-born workers admitted under occupational visas and those admitted under family reunification visas, or, for that matter, between those admitted as immigrants, refugees, or temporary workers. The absence of data on visa status and on whether the person was legally admitted means that most data sources have very limited usefulness for evaluating key provisions of U.S. immigration policy.

The lack of policy-relevant data at the U.S. end of the migration flow is unfortunately matched by a shortage of data in the sending country, although the Emigration Division of the Korean Ministry of Foreign Affairs does collect basic information from persons registering to emigrate. The data needs are in many respects similar for the sending and receiving countries, since both governments would like to know more about the demographic and human resource characteristics of persons migrating; and both have an interest in the migrants' activities in the new country, especially their economic activities, including the sending of remittances to the home country.

One solution to these data problems is to conduct surveys with representative samples of new immigrants as they enter the United States, then follow the experience of the sampled immigrants over a period of years. This procedure has seen limited use, however, owing to logistic difficulties and the need to arrange official auspices to gain access to an appropriate sample of immigrants. Another approach is to interview a sample of new immigrants before they depart from their home country, then trace them to their various U.S. destinations for follow-up interviews. That strategy is adopted here.

Conceptually, this study draws upon the immigration systems paradigm proposed by Fawcett and Arnold (1987). That approach gives equal attention to both ends of a migration flow, calls attention to subjective and objective comparisons between places, views migration as a dynamic sequence of events occurring over time, and highlights the diverse linkages between places. The migration systems paradigm treats migration as a social process and seeks to understand the relationship between macrolevel contextual conditions and the events experienced by an immigrant at various stages of movement—decision, transition, and adaptation (see Figure 1). Ideally, the system encompasses processes of return or onward migration as well.

The analysis of causes and consequences in a migration system requires data at different levels of aggregation and data with a time dimension, either a cross-sectional series or longitudinal data. In this paper, we make use primarily of cross-sectional census data for Korea and a premigration survey conducted in Korea. Other reports from the larger comparative project of which this is a part will utilize U.S. census data, other macrolevel data such as INS border-crossing statistics, and longitudinal data from follow-up surveys to be conducted over a six-year period with both Korean and Filipino immigrants.

The present paper concentrates on a set of data drawn from premigration interviews and a mail survey of a sizable sample of the 1986 cohort of Korean immigrants. In view of the inadequacies of existing data sources for analyzing human resources in relation to immigration policies, this study pays particular attention to the education and work experience of immigrants, and examines them and other important characteristics by type of immigrant visa.

The paper is divided into 11 sections. Historical trends in Korean immigration to the United States are reviewed first. The review provides an opportunity to trace the roots of immigration chains and their structural context. A section on data outlines the objectives of the study, describes the methods of data collection, and evaluates the representativeness of the sample; U.S. immigration policies and visa types are also described. Profiles of the immigrant groups are presented in the next section, where the demographic characteristics of the Immigrant Pre-Departure Assessment (IPDA) Survey respondents are examined and compared with other relevant populations. Some selectivities by visa type are also described.

A section on human resources then highlights the educational backgrounds of Korean immigrants, their facility with the English language, and the nonformal training they have received. Occupations are the focus of the next section, which looks at both predeparture work experience and expectations for work after arrival in the United States. The interrelated topics of income, social class, and level of living are covered next, followed by a section on resource flows that deals with both human resources and monetary resources. Following that, immigration processes are analyzed,

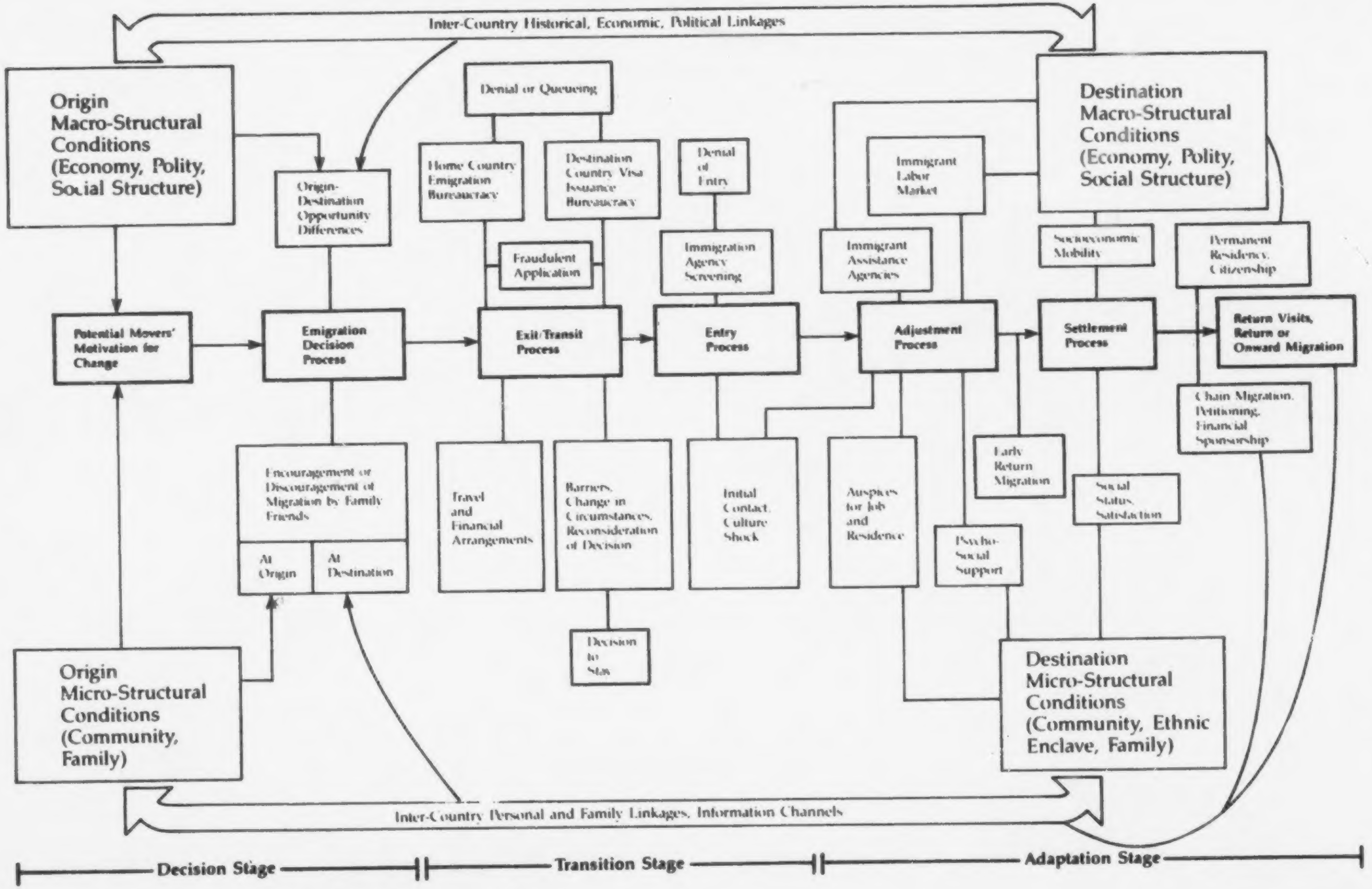
Inter-Country Historical, Economic, Political Linkages
Origin Macro-Structural Conditions (Economy, Polity, Social Structure)
Origin-Destination Opportunity Differences
Denial or Queueing
Home Country Emigration Bureaucracy
Destination Country Visa Issuance Bureaucracy
Fraudulent Application
Denial of Entry
Immigration Agency Screening
Immigrant Labor Market
Immigrant Assistance Agencies
Destination Macro-Structural Conditions (Economy, Polity, Social Structure)
Socioeconomic Mobility
Permanent Residency, Citizenship
Potential Movers' Motivation for Change
Emigration Decision Process
Exit/Transit Process
Entry Process
Adjustment Process
Settlement Process
Return Visits, Return or Onward Migration
Chain Migration, Petitioning, Financial Sponsorship
Encouragement or Discouragement of Migration by Family Friends
At Origin
At Destination
Travel and Financial Arrangements
Barriers, Change in Circumstances, Reconsideration of Decision
Decision to Stay
Initial Contact, Culture Shock
Auspices for Job and Residence
Early Return Migration
Psycho-Social Support
Social Status, Satisfaction
Origin Micro-Structural Conditions (Community, Family)
Destination Micro-Structural Conditions (Community, Ethnic Enclave, Family)
Inter-Country Personal and Family Linkages, Information Channels
Decision Stage
Transition Stage
Adaptation Stage

Figure 1. Processes in an immigration system

Source: Fawcett and Arnold (1987:Figure 19.1).

with special attention given to family networks, motivations for immigration, and the visa application process at the place of origin.

Expectations for jobs and further training in the United States are examined in some detail, including plans for self-employment. A section on place perceptions and problems expected in the United States examines the different ways these prospective immigrants view Korea and the United States and looks at specific problem areas in adaptation, including discrimination. In a final section, the results of this predeparture survey are summarized and the implications of current Korean immigration for both the sending and receiving countries are assessed.

HISTORICAL OVERVIEW

As Korean immigration to the United States has surged upward in recent years, the social science literature on the topic has grown apace. A number of studies review the earlier historical phases of Korean immigration (Choy 1979; Koo and Yu 1981; Light and Bonacich 1988; Hyung-Chan Kim 1986; Illsoo Kim 1981; Min 1988; Patterson 1988; Yu 1983). Several of these studies look at the structural and economic context on the sending-country side, as well as the policies and labor market conditions in the United States that have facilitated Korean immigration. We do not review all those influences here, but simply provide a sketch of the historical sequence.

Three major phases of Korean immigration to the United States have been identified: early labor immigration to Hawaiian plantations (1903–24), Korean War era immigration (1951–65), and recent immigration since the amendments to the Immigration and Nationality Act in 1965 and 1976.

Early Labor Immigration

During the first few years of the twentieth century (roughly between 1903 and 1905), more than 7,000 Korean immigrants reached Hawaiian shores (Table 1). They were predominantly young male laborers who had been recruited to work on the sugar plantations. The majority of them came from the port cities throughout Korea, were largely uneducated, and were engaged before migration in semi-skilled or unskilled occupations. In 1905 Korea became a protectorate of Japan, and in 1907 the United States stopped recognizing Korean passports. Thus, when the United States and Japan entered into their "Gentlemen's Agreement" to curtail the immigration of laborers from Japan, Korean laborers were also excluded. However, family members were still allowed to immigrate, and through the procedure of arranged marriages based on the exchange of photographs between prospective grooms in Hawaii and prospective brides in Korea, more than one thousand so-called "picture brides" arrived in Hawaii from Korea between 1910 and 1924 (Hurh and Kim 1984).

Contrary to the expectations of the new immigrants, conditions on the

Table 1. Highlights of Korean immigration to the United States: 1903–88

Category	Year	Number of immigrants admitted
Labor immigration to Hawaii[a]	1903–5	Approx. 7,000
Picture brides[a]	1910–24	Approx. 1,000
Korea war era immigration[b]	1951–65	17,204
New Korean immigrants[c]	1966	2,492
	1967	3,956
	1968	3,811
	1969	6,045
	1970	9,314
	1966–70	25,618
	1971	14,297
	1972	18,876
	1973	22,930
	1974	28,028
	1975	28,362
	1971–75	112,493
	1976	30,803
	1977	30,917
	1978	29,288
	1979	29,248
	1980	32,320
	1976–80	152,576
	1981	32,663
	1982	31,724
	1983	33,339
	1984	33,042
	1985	35,232
	1981–85	166,000
	1986	35,776
	1987	35,849
	1988	34,703
Total new Korean immigrants	1966–88	563,015

a. Source: Light and Bonacich (1988).

b. Sources: U.S., INS, *Annual Reports* and *Statistical Yearbooks* (various years); Light and Bonacich (1988). Immigrants during the Korean War era were about equally divided among wives of American servicemen, orphans, and professionals.

c. Sources: U.S., INS, *Annual Reports* and *Statistical Yearbooks* (various years).

plantations were deplorable: extremely hard work under the hot sun for low wages, no chance of promotion, and forced residence in communal living quarters isolated from the outside world. By 1926 the total number of Korean laborers on plantations was reduced by more than half from the beginning period just two decades earlier. Many moved to urban areas in Hawaii and the U.S. mainland, some finding employment initially as manual laborers but eventually experiencing occupational mobility. A substantial number managed to open small businesses, such as grocery stores, laundries, and barber shops. The period of early Korean immigration to the United States came to an end in the 1920s, after the Immigration Act of 1924 curtailed the admission of non-Europeans, especially Asians.

The Korean War Era

It was not until 1946 that new amendments to the U.S. immigration law began to relax restrictions on the immigration of Asians. The next substantial influx of Korean immigrants (1951–64) occurred mainly during and after the Korean War. It consisted of three major subgroups: Korean wives of American servicemen, war orphans, and professional workers. The number of Koreans legally admitted to the United States during the period exceeded 17,000.

The majority of immigrants between 1951 and 1965 consisted of wives and children, so that this flow had quite different characteristics from the earlier flow of plantation workers. The early immigrants had a sex ratio of 10 males to 1 female, whereas the Korean War era immigrants had a sex ratio of 1 male to 3.5 females. With respect to occupational background, most of the Korean War era immigrants reported no occupation other than that of housewife at the time of their admission to the United States. A smaller group of professional and skilled workers, however, brought valuable human resources to the United States.

Contemporary Immigration

In 1965 the U.S. Immigration and Nationality Act of 1952 was extensively amended. One of the significant changes was the abolition of the national origin quota system. Since then, Korean immigration—like immigration from many other Asian countries—has grown dramatically, from just above 2,000 in 1965 to more than 30,000 annually since 1976. Korea has ranked among the top five countries sending immigrants to the United States since 1975. INS statistics show a total of 563,015 Koreans immigrating to the United States between 1966 and 1988.

In the period immediately following the change of the law in 1965, a high proportion of Korean immigrants were professionals, many in the health fields. Illsoo Kim (1987:333) points out, however, that further amendments to the law in 1976 "downgraded professional immigrants (physicians, nurses, dentists) from the third preference to the sixth preference." Another aspect of the 1976 amendments also affected the composition of Korean immigration. Before 1976, the statutory percentage limits for each visa category were applied only at the worldwide level; after the 1976 changes, if a country reached the maximum of 20,000 preference-category immigrants in given year, during the following year the percentage limits were applied at the country level. Thus, for countries like the Republic of Korea that were reaching the 20,000 figure, occupational immigrants would be limited to a small percentage of the 20,000 quota, whereas, theoretically, before 1976 occupational immmigrants could fill the whole quota if no family immigrants applied. Kim attributes a new pattern of immigration to these shifts in policy, pointing out that, "in 1972, some 45 percent of Korean immigrants had entered the United States under occupational and other nonfamily preferences; the percentage fell to 8 percent in 1977 and 6 percent in 1983" (Illsoo Kim 1987:333).

Several researchers have observed that Korean immigrants in the contemporary period are not as highly selected in terms of occupation, class, and educational background as their predecessors admitted prior to the 1976 amendment (Hurh and Kim 1987, 1988; Min 1988). Nonetheless, the new pattern of entry based predominantly upon kinship still reflects much of the old pattern of occupational and class selectivity, since the majority of new arrivals are close relatives of early immigrants who were themselves positively selected on socioeconomic characteristics. Many Korean War wives and their families, however, came from the lower strata of Korean society (Illsoo Kim 1987). Current flows still include many Korean women entering as wives or fiancées of Americans, as we show in our survey data, but this group seems less homogeneous than in the past, reflecting the rapid structural changes that have taken place in Korean society.

THE DATA

As noted earlier, the paucity of existing representative data was a major reason for conducting a predeparture sample survey of the 1986 cohort of immigrants. By interviewing prospective immigrants face-to-face in the period just before they left their home country, it was possible to obtain a rich body of data about them and their families. Not only does this dataset enable an in-depth examination of a year's cohort of immigrants, it also provides a baseline for later longitudinal follow-up studies. And, because a comparable survey was carried out simultaneously for Filipino immigrants, the overall comparative study has potential for providing answers to some fundamental questions about the immigration process.

For example, what are the factors that determine participation or nonparticipation of new immigrants in the U.S. labor market? For those who will work, is their choice of occupation dictated more by their own qualifications ("human capital"), by cultural considerations (such as the "Confucian ethic"), or by contextual opportunity factors (including nonopportunity as a result of racial or ethnic discrimination)? A subquestion of particular interest for the comparison between Koreans and Filipinos is the following: Why do some immigrants go into business for themselves, whereas others enter the wage-paying labor market?

This comparative longitudinal study will also shed light on the role of the family and the ethnic network in the process of immigrant adaptation. Toward that end, the predeparture survey collected detailed data on the geographic locations of family members; follow-up surveys in the United States ask additional questions about the proximity of relatives and the ethnic composition of the residential neighborhood and the workplace. These topics relate to the settlement process that is shown near the end of the sequence of microlevel processes in the immigration system paradigm (Figure 1). Ultimately, seven separate survey operations are planned in this project, extending until 1992. Two 1986 baseline surveys provide most of the data for the present report.

Sampling and Data Collection

The 1986 Immigrant Pre-Departure Assessment (IPDA) Survey was conducted by the East-West Population Institute, the University of the Philippines, and Hanyang University, with the cooperation of the U.S. Embassies in Manila and Seoul. A systematic sample of approximately 10 percent of new immigrant visa holders between the ages of 18 and 69 was selected in the Philippines and Korea throughout 1986. In all, 3,911 adult immigrants were interviewed in the two countries. The IPDA Survey focuses on (1) the sociodemographic characteristics and the human resources embodied in these new immigrants to the United States, (2) their family networks, (3) visa procedures and travel arrangements, (4) migration processes, and (5) the immigrants' plans and expectations regarding life in the United States. A summary of the IPDA questionnaire is contained in Appendix A. The interviews were conducted in private survey offices within walking distance of the U.S. Embassies. The questionnaires were administered in Korean in Korea and in either Tagalog, Ilokano, Cebuano, or English in the Philippines.

Since all U.S. immigrant visas in Korea and the Philippines are issued at the embassies in Seoul and Manila, the IPDA Survey provides a representative sample of the 1986 cohort of adults (ages 18–69) issued new immigrant visas in their home countries. Regarding the entire population of new adult immigrants from Korea and the Philippines in 1986, however, this survey does not provide a complete picture because it omits "status adjusters," those who apply for immigrant visas while they are in the United States on nonimmigrant visas. In 1986, 18.0 percent of the cohort of Korean immigrants of ages 18–69 were status adjusters. To fill this gap in data for the 1986 cohort of immigrants, a mail survey was conducted of all adult Korean and Filipino status adjusters during the last half of 1986. A total of 2,114 respondents completed the mail questionnaire (1,565 Filipinos and 549 Koreans). The Korean sample represents 13.9 percent of the 1986 cohort of status adjusters in the 18–69 age range. Some of the results from the Korean Status Adjusters Survey (SAS) are included in this report. For topics on which the IPDA and SAS data are directly comparable, such as for demographic characteristics, weighted totals are provided to show patterns for the entire 1986 Korean immigrant cohort. A summary of the SAS questionnaire is contained in Appendix B. Data from the 1985 Korean census, the Korean Labor Statistics monthly reports, and other sources are also reported here for contextual purposes and to make comparisons with the IPDA and SAS findings.

Prior to the field work for the IPDA Survey, six trained interviewers conducted pretest interviews with 60 Korean immigrants during the last two weeks of September 1985. The pretest sample was randomly selected from those who came to the designated overseas corporations that file applications for passports as well as visas for immigrants. The rate of refusal here was quite high, as it had been in an earlier attempt to contact pretest respondents by telephone from a list of passport applicants. Fortunately, cooperative arrangements with the U.S. Embassy for the study itself produced much better results.

To facilitate selection of a survey sample stratified by visa category, the embassy provided access to the appointment lists for the final stage of visa processing. Those lists contain information on each applicant's date of birth and visa category. Throughout calendar year 1986, an approximate 10 percent sample of eligible applicants (ages 18–69) was selected within each immediate relative and preference category three days prior to the actual visa interview. The embassy staff inserted in the visa file of every sampled applicant a special notice that outlined the purpose of the research, gave information about the sponsoring organization, provided assurance of anonymity, and showed a map to the survey interview office. After the embassy visa interview was completed and the immigrant visa was approved, embassy staff ascertained the sampled individual's willingness to participate in the survey. A member of the research project staff then met respondents in the waiting room of the consular section of the embassy, after they had received their immigrant visas. Those who agreed to be interviewed were accompanied to the survey office, which was only a two- or three-minute walk from the embassy. Interviews were completed with 1,834 Korean immigrants out of a total sample of 2,084 eligible respondents. Overall, 88 percent of the sample was successfully interviewed, despite the fact that many respondents were planning to leave for the United States within one day and they were busy settling last-minute financial and family matters.

Evaluation of Sample by Visa Category

The overall nonresponse rate of 12 percent varied considerably for different types of immigrants. The number of interviews that were not completed is shown by visa category in Table 2. Generally, the highest refusal and incompletion rates were found among young women and old women, and the lowest rates among professionals. The highest rate for any large group (24 percent) was among the spouses of U.S. citizens, most of whom were women married to American servicemen. The embassy requires the applicants to be accompanied by their spouses for the visa interview and many American servicemen, when informed about the survey and its voluntary nature, induced their wives to refuse the interview. A relatively high nonresponse rate (20 percent) was also evident for parents of U.S. citizens. Many of these were older women who could not follow the interview owing to a lack of education or poor memory, and the interview had to be discontinued. The present report is based on 1,834 interviews completed between

Table 2. Number and percentage of the predeparture sample completing and not completing the interview, by immigrant visa category: IPDA, 1986

Visa category[a]	All sampled cases	Number interviewed	Sampled respondents not interviewed	Nonresponse rate (%)
IR1, spouses of U.S. citizens	277	210	67	24.2
IR2, children of U.S. citizens	17	14	3	17.6
IR5, parents of U.S. citizens	300	239	61	20.3
K1[b], fiancé(e)s of U.S. citizens	64	54	10	15.6
P1 and P4, adult children of U.S. citizens	44	40	4	9.1
P2, spouses and unmarried adult children of resident aliens	753	703	50	6.6
P3 and P6, professionals and workers	109	103	6	5.5
P5, siblings of U.S. citizens	510	467	43	8.4
SD and SE, ministers and U.S. government employees	10	4	6	60.0
Total	2,084	1,834	250	12.0

a. For details of visa categories, including beneficiaries, see text and Table 9.

b. Fiancé(e)s of U.S. citizens are issued nonimmigrant (K1) visas but are processed like immigrants and are required to adjust to immigrant status through marriage within 90 days after their arrival in the United States.

1 January and 31 December 1986. This sample comprises 10 percent of the Korean immigrants 18–69 years old who were classified in INS data as "New Arrivals" in calendar year 1986.

The visa categories shown in Table 2 reflect the basic provisions of U.S. immigration law; these provisions, in turn, have profound effects on the characteristics of immigrant subgroups. The categories of admission under current law are used frequently in this report to classify respondents.

The 1965 provisions, as amended, allow the admission of two basic classes of immigrants: those who are subject to a numerical restriction of 20,000 immigrants per year from any one country, and those who are exempt from this numerical restriction. The exempt category is composed of immediate relatives of U.S. citizens, primarily three types of relatives:

IR-1 — Spouses of U.S. citizens
IR-2 — Unmarried minor children of U.S. citizens
IR-5 — Parents of adult U.S. citizens

The designations above include the letters "IR" for "immediate relative." The nonexempt (i.e., numerically restricted) designations described next include the letter "P" for "preference category."

The main categories subject to quotas within the 20,000 person per country limit are as follows (with percentages for visa allocations shown in parentheses):

First Preference (20 percent)
  P1-1 — Unmarried adult children of U.S. citizens
  P1-2 — Their children

Second Preference (26 percent)
  P2-1 — Spouses of resident aliens
  P2-2 — Unmarried adult children of resident aliens
  P2-3 — Children of P2-2 visa holders

Third Preference (10 percent)
  P3-1 — Members of the professions and artists and scientists of exceptional ability
  P3-2 — Their spouses
  P3-3 — Their children

Fourth Preference (10 percent)
  P4-1 — Married children of U.S. citizens
  P4-2 — Their spouses
  P4-3 — Their children

Fifth Preference (24 percent)
  P5-1 — Brothers and sisters of U.S. citizens
  P5-2 — Their spouses
  P5-3 — Their children

Sixth Preference (10 percent)
P6-1 — Skilled and unskilled workers in short supply
P6-2 — Their spouses
P6-3 — Their children

The first, second, fourth, and fifth visa categories are family preference visas, designed to promote the policy goal of family reunification. The third and sixth visa categories are occupational preference visas, designed to meet U.S. labor market needs. We use these broader categories, along with the category of immediate relatives, in cross-tabulations of data later in this report.

How successful were our sampling procedures? Table 3 shows the distribution by visa category of IPDA and SAS respondents, as well as that of the IPDA and SAS samples combined (with the combined samples weighted to reflect their proportions in the population of 1986 Korean immigrants). The table compares the sample data with similar data on the populations from which the samples were drawn. It compares the IPDA survey with INS data on new arrivals, the SAS with INS data on status adjusters, and the combined, weighted samples with INS data on the entire calendar year 1986 cohort of new immigrants from Korea.

As shown by comparison of the last two columns of Table 3, the distribution of the combined, weighted survey samples by visa category parallels fairly closely the distribution for the entire 1986 cohort. With respect to the major categories of visas, the comparison is as follows:

Visa category	IPDA + SAS weighted composite	1987 INS statistics
Exempt from numerical limitations	34.7	39.7
Family preference	56.7	53.0
Occupational preference	8.6	7.3

The comparisons between IPDA and new arrivals, and between SAS and status adjusters, also reflect broadly similar patterns. (Details on the sources of data for these comparisons are contained in the footnotes to Table 3.) Overall, the comparisons of visa category distributions seem close enough that the sampling process can be judged to be generally adequate. This conclusion is buttressed by other comparisons, discussed below.

Concerning size of the sample in each visa category, it is important to note that 2 percent of the sample distribution in the IPDA Survey is only 36 cases, a small number for analysis. Visa categories with 2 percent or fewer cases in the IPDA survey include IR-2, children of citizens (0.8 percent); special immigrants (0.2 percent); P-1, adult unmarried children of U.S. citizens (0.2 percent); P-3, professionals and artists (1.4 percent); and P-4, adult married children of U.S. citizens (2.0 percent). Caution is necessary in interpreting findings with respect to visa categories with small numbers.

Another aspect of the visa categories that deserves highlighting is the inclusion of "derivative" cases (i.e., spouses and children) under the same general heading as the "primary" immigrant (i.e., the one who was petitioned and who qualified for admission). In the case of P-6 (skilled and unskilled workers) for the Korea IPDA sample, for example, out of 78 cases 34 were primary immigrants, 38 were spouses, and 6 were children (over age 18, because of sampling criteria). Only the immediate relative categories do not include any derivative cases. When examining the characteristics of a group defined by visa type, it is important to bear in mind that the group may include spouses and children. (In the IPDA Survey, however, children under age 18 were excluded.)

Visa Categories of the Status Adjusters Sample

The process by which nonimmigrant visa holders become immigrants while in the United States is highlighted in Table 4, which cross-tabulates the type of nonimmigrant visa held with the type of immigrant visa obtained through the adjustment process (SAS data). The largest number of status-adjusted immigrants originally came to the United States on tourist or student visas. A substantial proportion (18 percent) consisted of fiancé(e)s who entered on K-1 nonimmigrant visas and became spouses after arrival. Among persons on tourist visas, most became immigrants by being petitioned as family members. In these cases, it seems that the tourist visa was being used as an "early admission" device, i.e., as a way of coming to the United States while the immigration papers (mainly petitions under the immediate relative category) were being processed. Among business visitors and students, most also became immigrants through petitions filed by relatives, but a sizable proportion of each group (44 percent and 31 percent) were petitioned on the basis of their occupations. Presumably most of these occupations were related to the work done or training program pursued under the nonimmigrant visa.

The fairly large "other" category for nonimmigrant visas in this table (54 respondents) is made up predominantly of "treaty traders" (persons admitted temporarily to manage a business), most of whom also received immigrant visas as professionals and workers. In general, Table 4 shows that diverse routes exist for adjusting from nonimmigrant to immigrant visa status in the United States, but that over half the adjustments result from petitioning by an immediate relative (spouse, parent, or child) who is a U.S. citizen.

DEMOGRAPHIC CHARACTERISTICS OF IMMIGRANTS

The major policy issues related to both emigration and immigration revolve around the characteristics of the movers. Are they young or old, male or

Table 3: Korean survey samples and immigrant populations, by immigrant visa category (percentage distributions)

Visa category	IPDA[1]	New arrivals[2]	SAS[3]	Status adjusters[4]	IDPA + SAS[5]	1986 immigrant population[6]
Exempt from numerical limitation						
IR-1 — spouse of citizen	11.6	16.0	40.6	38.6	16.8	19.9
IR-2 — child of citizen	0.8	0.3	1.1	0.1	0.9	0.3
IR-5 — parent of adult citizen	12.9	14.8	20.3	23.0	14.3	16.2
K-1 — fiancé(e) of citizen	2.9	3.0	0.0	0.0	2.4	2.5
Special immigrants						
SD — minister of religion	0.2	0.5	1.5	1.3	0.5	0.6
SE — employee of U.S. government abroad	0.0	0.2	0.0	0.0	0.0	0.2
Total exempt	28.4	34.7	63.5	63.0	34.9	39.7
Subject to numerical limitation[7]						
Family preferences						
P-1 — unmarried son or daughter of citizen	0.2	0.2	0.2	0.2	0.2	0.2
P-2 — spouse or unmarried son or daughter of alien	38.3	34.2	9.8	10.0	33.2	29.9
P-4 — married son or daughter of citizen	2.0	2.3	0.9	0.9	1.8	2.1
P-5 — brother or sister of citizen	25.5	24.7	3.3	2.6	21.5	20.8
Total family	66.0	61.4	14.2	13.7	56.7	53.0

Occupational preferences[8]						
P-3 - professional or artist	1.4	0.7	15.7	15.6	3.9	3.3
P-6 - skilled or unskilled worker	4.3	3.1	6.6	7.7	4.7	3.9
Total occupational	5.6	3.8	22.3	23.3	8.6	7.3
Total subject to limitation	71.6	65.3	36.5	37.0	65.3	60.3
Number[9]	1,834	18,464	542	3,935		22,399

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1. The IPDA survey was conducted in Seoul during calendar year 1986. The age range for the new visa holders eligible for the sample was 18–69.

2. New arrival statistics for 1986 were calculated from INS data tapes. All Koreans of ages 18–69 issued new immigrant visas during calendar year 1986 are counted, with the exception of status adjusters and the following immigrant visa categories: AR1 (four cases), A11 (five cases), A41 (14 cases), and A42 (11 cases). The calculations for K visas were based on figures from the nonimmigrant group of new arrivals, ages 18–69. Conditional visas are treated the same as nonconditional visas; e.g., the category IR-1 includes CR-1 visas.

3. The SAS sample was designed to encompass all Koreans of ages 18–69 who adjusted their status from nonimmigrant to immigrant during the last six months of 1986. (Owing to sampling or reporting error, the sample includes one person of age 15 and five persons over 69). Seven cases for whom data were missing are excluded from analysis.

4. Status adjuster statistics for 1986 were calculated from INS tapes. All Koreans of ages 18–69 who adjusted from nonimmigrant to immigrant status during calendar year 1986 are included, with the exception of those who adjusted to categories AR6 (three cases), MR6 (one case), NP9 (one case), RE6 (one case), SJ6 (one case), Z11 (three cases), and Z41 (one case).

5. Weights were assigned according to the proportion of new arrivals (.82) and the proportion of status adjusters (.18) among all Korean immigrants of ages 18–69 during calendar year 1986, according to INS statistics.

6. The immigrant population, ages 18–69, for calendar year 1986 was calculated from INS data tapes.

7. The categories of special immigrants and all of the categories that are subject to numerical limitation include accompanying "derivative cases" (spouses and children) along with the "primary" immigrants who qualified for the visa.

8. Because of small numbers, the sampling fraction for P3 and P6 visas in Korea was increased after the survey was under way. The related changes in field procedures may have introduced some bias into the selection of P3 and P6 cases for the Korean sample.

9. Number of cases is omitted for IPDA + SAS because calculations are weighted.

Table 4. Immigrant admission category, by prior nonimmigrant visa cate-

	Nonimmigrant visa category							
	Fiancé(e) K		Business B1		Tourist B2		Student F	
Immigrant visa category after status adjustment	N	%	N	%	N	%	N	%
Immediate relatives (Nonpreference)	94	96.9	19	42.2	138	76.7	60	41.7
Family preferences	3	3.1	6	13.3	18	10.0	40	27.8
Occupational preferences	0		20	44.4	18	10.0	44	30.6
Other	0		0		6	3.3	0	
Total[a]	97	100.0	45	99.9	180	100.0	144	100.1

a. In this and subsequent tables, percentages may not sum to 100.0 because of rounding.

female, employed or unemployed, skilled or unskilled? The answers to these questions provide indicators, albeit crude ones, of the gains and losses to the sending and receiving communities.

Among the many advantages of survey methods in the study of migration is their ability to collect detailed data about the characteristics of movers and, in some designs, nonmovers as well. The IPDA Survey and the Status Adjusters Survey pertain only to movers. Because these surveys are designed to be representative of an annual national cohort of immigrants, however, it is meaningful to make comparisons with the population from which the movers are drawn. That is, we can document the selectivities in the Korea-U.S. immigration process in 1986. (We could also look at this cohort in relation to relevant subpopulations in the receiving county, e.g., Asian Americans, but those comparisons will be made in other reports from this project). In the present section we examine basic demographic characteristics—age, sex, and marital status—and show how these are influenced by U.S. immigration policies as reflected in visa categories for admission. In the following section we extend this analysis to the important topic of human resources.

Age and Sex

Korean immigrants to the United States are slightly younger than the population they left and predominantly female. Among 1986 predeparture immigrant visa holders of ages 18–68, as represented by the IPDA sample, 71 percent were under age 40 and the mean age for the sample was 35.0 years (Table 5, top panel). The SAS sample of persons who adjusted to immigrant status in 1986 was substantially older than the IPDA sample, with a mean age of 39.5 years (Table 5, bottom panel). The resulting mean age for the combined IPDA + SAS sample was 35.8, just 0.9 year younger than gory: SAS, 1986

before status adjustment									
Exchange visitor J		Temporary worker H		B1/B2 combined		Other		Total	
N	%	N	%	N	%	N	%	N	%
3	42.9	1	12.5	1	100.0	15	27.8	331	61.8
1	14.3	0		0		8	14.8	76	14.2
3	42.9	5	62.5	0		31	57.4	121	22.6
0		2	25.0	0		0		8	1.5
7	100.1	8	100.0	1	100.0	54	100.0	536[b]	100.1

b. Thirteen cases for whom data were missing are excluded from analysis.

the mean age of 36.7 years for the total Korean population, ages 18–68, in 1985 (Table 6). (Note that, because of skewing of the age distributions toward the older ages, these mean ages are substantially older than the median ages, which are also shown in Table 5.)

Within both the IPDA and SAS samples, the mean age for males was higher than that for females, which is a reversal of the situation for the total Korean population. The net effect is that, for the weighted combined sample, male Korean emigrants to the United States were just barely younger than the male population of Korea, while female Korean emigrants to the United States were more than one and one-half years younger than the female population of Korea.

In addition to being slightly younger than the total Korean population, Korean emigrants to the United States were predominantly female. More than 58 percent of IPDA respondents were women, giving a sex ratio (males per 100 females) of 70.9 (Table 7). Status adjusters were even more heavily female, with a sex ratio of 68.0. This stands in contrast to the situation of near balance between the sexes among persons of ages 18–68 in Korea, where a sex ratio of 99.1 was observed in 1985.

Strikingly different age patterns are evident for immigrants in the various visa categories (Table 8). In both the IPDA and SAS samples, a majority of occupational preference respondents were in the 30–39 year age group and most of the remaining respondents were 40–49 years old. Immediate relatives show a bimodal age distribution, a reflection of the fact that in our sample immediate relatives were mostly spouses and parents of U.S. citizens and children under 18 were not eligible for inclusion in the sample. Family preference immigrants show still another pattern, since they consisted of "primary" immigrants (who can be siblings, spouses, or adult children) and "derivative" immigrants (spouses or children of ages 18–20).

Table 5. Predeparture immigrants and status adjusters, by age and sex: IPDA and SAS, 1986

Sample and age group	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)						
18–19	39	5.1	42	3.9	81	4.4
20–29	308	40.5	502	46.8	810	44.2
30–39	192	25.2	212	19.8	404	22.0
40–49	108	14.2	117	10.9	225	12.3
50–59	69	9.1	136	12.7	205	11.2
60–68	45	5.9	64	6.0	109	5.9
Total	761	100.0	1,073	100.1	1,834	100.0
Mean age	35.1		34.9		35.0	
Median age	31.2		29.8		30.5	
Status adjusters (SAS)						
15–19	4	1.8	5	1.5	9	1.6
20–29	39	17.6	112	34.5	151	27.7
30–39	88	39.8	97	29.8	185	33.9
40–49	40	18.1	22	6.8	62	11.4
50–59	28	12.7	39	12.0	67	12.3
60–76	22	10.0	50	15.4	72	13.2
Total	221	100.0	325	100.0	546[a]	100.0
Mean age	40.4		39.0		39.5	
Median age	36.8		33.2		34.6	
Weighted average of IPDA and SAS means	36.1		35.6		35.8	

a. Three cases for whom data were missing are excluded from analysis.

In looking at the results of this study, it is important to keep in mind both these differences in age patterns for the various visa categories and the fact that our samples had both upper and lower age limits.

The low sex ratio (fewer males than females) among Korean immigrants is attributable in part to the large number of Korean wives of American servicemen stationed in Korea. Hurh and Kim (1984) have shown that during the period 1950–75, 28,205 Korean wives of American servicemen arrived in the United States. Other factors favoring females include the large number of Korean nurses who immigrated in the 1970s and the high proportion of females among Korean children adopted by Americans (Illsoo Kim 1981; Min 1988).

A close look at the distribution of specific visa categories by sex, in conjunction with survey data on ethnicity of spouse (Table 9), indicates that

Table 6. Population of Korea, ages 18–68, by age and sex: 1985

Age group	Males Number	Males %	Females Number	Females %	Both sexes Number	Both sexes %
18–19	810,713	6.7	756,811	6.2	1,567,524	6.4
20–29	4,212,905	34.7	4,102,593	33.5	8,315,498	34.1
30–39	2,913,979	24.0	2,782,440	22.7	5,696,419	23.3
40–49	2,151,674	17.7	2,125,046	17.3	4,276,720	17.5
50–59	1,370,199	11.3	1,592,817	13.0	2,963,016	12.1
60–68	689,309	5.7	898,838	7.3	1,588,147	6.5
Total	12,148,779	100.1	12,258,545	100.0	24,407,324	99.9
Mean age	36.2		37.2		36.7	

Source: R.O.K., NBOS (1987b: Table 2).

Table 7. Sex ratio of the population of Korea, 1985, and of IPDA and SAS immigrants, 1986

Population	Males	Females	Sex ratio (males per 100 females)
Korean population	20,227,564	20,192,088	100.2
Korean population, Ages 18–68	12,148,779	12,258,545	99.1
Predeparture immigrants (IPDA)	761	1,073	70.9
Status adjusters (SAS)[a]	221	325	68.0

Sources: R.O.K., NBOS (1987b: Table 2); IPDA and SAS surveys.

a. Three cases for whom data were missing are excluded from analysis.

the preponderance of females among recent Korean immigrants is due not only to the high proportion of young Korean wives of American servicemen but also to the immigration of old Korean mothers. The spouses and fiancés of non-Korean Americans comprised about 12 percent of the sample and nearly all of them (213 out of 217) were wives. A slightly larger proportion of the sample (13 percent) consisted of parents of U.S. citizens (i.e., parents of Korean Americans), 71 percent of whom were mothers. Another factor contributing to the sex imbalance of the sample was the immigration of women married to or engaged to Korean American men who had immigrated earlier, although the numbers were much smaller for these categories and the sex ratio was not so imbalanced as was the case for Korean spouses and fiancé(e)s of non-Koreans. A sex imbalance favoring *males* for the immigration of unmarried adult children of aliens (272 out of 428) is noteworthy in Table 9.

Table 8. Age distribution of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and age group	Immediate relatives		Family preference categories		Occupational preference categories		Others	
	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)								
18–19	20	3.9	57	4.7	4	3.9	0	0.0
20–29	215	41.6	584	48.3	11	10.7	0	0.0
30–39	37	7.2	314	26.0	52	50.5	1	25.0
40–49	19	3.7	176	14.5	28	27.2	2	50.0
50–59	125	24.2	71	5.9	8	7.8	1	25.0
60–68	101	19.5	8	0.7	0	0.0	0	0.0
Total	517	100.1	1,210	100.1	103	100.0	4	100.0
Mean age	40.9		32.3		37.5		45.8	
Median age	34.0		29.4		36.7		46.5	
Status adjusters (SAS)								
15–19	6	1.8	2	2.6	0	0.0	1	12.5
20–29	117	34.8	24	31.2	9	7.4	0	0.0
30–39	75	22.3	33	42.9	72	59.5	4	50.0
40–49	18	5.4	12	15.6	30	24.8	1	12.5
50–59	53	15.8	3	3.9	10	8.3	1	12.5
60–76	67	19.9	3	3.9	0	0.0	1	12.5
Total[a]	336	100.0	77	100.1	121	100.0	8	100.0
Mean age[b]	40.6		34.3		37.6		40.5	
Median age[b]	34.2		32.8		36.3		37.5	
Weighted average of IPDA and SAS means	40.8		32.7		37.6		44.9	

a. Seven cases for whom data were missing are excluded from analysis.

b. SAS means and medians are calculated from five-year data.

It is useful to review the family characteristics of Korean immigrants with reference to their relationship to the Korean American who petitioned for them. With regard to *male* Korean immigrants in the IPDA sample, out of every ten for whom petitions were made, fewer than one was a father of a petitioner, 1.3 were husbands or fiancés, 3.8 were sons, and 1.7 were brothers. For *females*, 1.6 out of ten were mothers of petitioners, 4.0 were wives or fiancées, 1.6 were daughters, and 1.0 was a sister. More mothers and wives than fathers and husbands were admitted as immigrants from Korea. To a large extent, the imbalance is due to the petitioning on behalf of young wives of American servicemen as well as the petitioning on behalf of Korean women by the large number of previously single Korean male immigrants. Among elderly parents, more petitions are for women than for men, presumably because women live longer than men. In addition, mothers may be brought to the United States to help with household chores or child care. Among children, more petitions are made for sons than for daughters.

The sex distributions for predeparture immigrants and status adjusters, by type of immigrant visa, are compared in Table 10. These data reveal that the imbalance in favor of women occurs only in the immediate relative category. The very high proportion of women (83 percent) among IPDA immediate relatives is partly attributable to the inclusion of fiancé(e)s in this category; the SAS data also reflect this phenomenon, since persons arriving in the United States on nonimmigrant visas as fiancé(e)s are required to marry within 90 days, after which the adjustment to immigrant status occurs.

Marital Status

Unlike the earliest immigrants from Korea, among whom about 80 percent were bachelors, the majority (64 percent) of predeparture immigrants in 1986 were married (top panel of Table 11). More of the female than of the male immigrants were married upon arrival (68 percent of the female immigrants as compared with 57 percent of the male immigrants). In addition, a higher proportion of females were engaged to be married (5.1 versus 1.3 percent). Only 16 percent of the IPDA females were single, compared with 40 percent of the IPDA males.

Among SAS respondents (middle panel of Table 11) the proportion married was even greater (84 percent). The SAS females were somewhat less likely to be single than the males because of the substantial portion who were widowed.

The bottom panel of Table 11 presents combined, weighted survey data for comparison with the 1985 Korean population of ages 20–69 (Table 12). Male immigrants were more likely to be bachelors than were male Koreans in general (34 percent as compared with 29 percent). The marital status profile for immigrant females, on the other hand, is quite similar to the profile

Table 9. Immigrant visa category of predeparture immigrants, by sex and ethnicity of spouse/fiancé(e): IPDA, 1986

Visa category	Number			Percentage			Sex ratio (males per 100 females)
	Males	Females	Both sexes	Males	Females	Both sexes	
Spouses of U.S. citizens (IR–1), citizen *not* of Korean ethnicity	4	165	169	0.5	15.4	9.2	2.4
Fiancé(e)s of U.S. citizens (K–1), citizen *not* of Korean ethnicity	0	48	48	0	4.5	2.6	a
Marriage to non-Koreans, subtotal	4	213	217	0.5	19.9	11.8	1.9
Spouses of U.S. citizens (IR–1), citizen of Korean ethnicity	8	35	43	1.1	3.3	2.3	22.9
Fiancé(e)s of U.S. citizens (K–1) citizen of Korean ethnicity	2	4	6	0.3	0.4	0.3	50.0
Marriage to Korean Americans, subtotal	10	39	49	1.3	3.6	2.7	25.6
Spouses of resident aliens (P2–1)	89	182	271	11.7	17.0	14.8	48.9
Unmarried sons and daughters of resident aliens (P2–2)	272	156	428	35.7	14.5	23.3	174.4
Children of unmarried sons and daughters of resident aliens (P2–3)	3	1	4	0.4	0.1	0.2	300.0
Spouses and children of resident aliens, subtotal	364	339	703	47.8	31.6	38.3	107.4
Children under age 21 of U.S. citizens (IR–2)	8	6	14	1.1	0.6	0.8	133.3
Unmarried sons and daughters of U.S. citizens (P1–1)	3	1	4	0.4	0.1	0.2	300.0
Married sons and daughters of U.S. citizens (P4–1)	9	11	20	1.2	1.0	1.1	81.8
Spouses of married sons and daughters of U.S. citizens (P4–2)	8	8	16	1.1	0.8	0.9	100.0
Children of citizens, subtotal	28	26	54	3.7	2.4	2.9	107.7

Brothers and sisters of U.S. citizens (P5–1)	131	112	243	17.2	10.4	13.2	117.0
Spouses of brothers and sisters of U.S. citizens (P5–2)	80	106	186	10.5	9.9	10.1	75.5
Children under age 21 of brothers and sisters of U.S. citizens (P5–3 and P5–4)	24	14	38	3.2	1.3	2.1	171.4
Siblings of citizens, subtotal	235	232	467	30.9	21.6	25.5	101.3
Parents of adult U.S. citizens (IR–5)	67	170	237	8.8	15.8	12.9	39.4
Parents, subtotal	67	170	237	8.8	15.8	12.9	39.4
Professionals, highly skilled workers, and artists (P3–1)	8	3	11	1.1	0.3	0.6	266.6
Spouses of professionals, highly skilled workers, and artists (P3–2)	5	9	14	0.7	0.8	0.8	55.6
Professionals, subtotal	13	12	25	1.7	1.1	1.4	108.3
Workers with needed skills and unskilled workers (P6–1)	23	11	34	3.0	1.0	1.9	209.1
Spouses of skilled and unskilled workers (P6–2)	12	26	38	1.6	2.4	2.1	46.2
Children under age 21 of skilled and unskilled workers (P6–3 and P6–4))	3	3	6	0.4	0.3	0.3	100.0
Workers, subtotal	38	40	78	5.0	3.7	4.3	95.0
Ministers of religion (SD–1)	2	0	2	0.3	0	0.1	a
Spouses of ministers of religion (SD–2)	0	2	2	0	0.2	0.1	a
Ministers, subtotal	2	2	4	0.3	0.2	0.2	100.0
Total	761	1,073	1,834	100.0	99.9	100.0	70.9

a. Sex ratio not calculated because respondents belong to only one sex.

Table 10. Sex distribution of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and sex	Immediate relatives		Family preference categories		Occupational preference categories		Others	
	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)								
Males	89[a]	17.2	619	51.2	51	49.5	2	50.0
Females	428[b]	82.8	591	48.8	52	50.5	2	50.0
Total	517	100.0	1,210	100.0	103	100.0	4	100.0
Status adjusters (SAS)								
Males	108	32.1	41	53.3	63	52.1	6	75.0
Females	228	67.9	36	46.8	58	47.9	2	25.0
Total[c]	336	100.0	77	100.1	121	100.0	8	100.0

a. Includes two fiancés (K1 visas).

b. Includes 52 fiancées (K1 visas).

c. Seven cases for whom data were missing are excluded from analysis.

Table 11. Marital status of predeparture immigrants and status adjusters, by sex: IPDA and SAS, 1986

Sample and marital status	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)						
Currently married	436	57.3	734	68.4	1,170	63.8
Never married	305	40.1	166	15.5	471	25.7
Engaged	10	1.3	55	5.1	65	3.5
Separated	0	0.0	1	0.1	1	0.1
Divorced	6	0.8	26	2.4	32	1.7
Widowed	4	0.5	91	8.5	95	5.2
Total	761	100.0	1,073	100.0	1,834	100.0
Status adjusters (SAS)						
Currently married	195	88.2	263	80.9	458	83.9
Never married	18	8.1	14	4.3	32	5.9
Engaged	0	0.0	0	0.0	0	0.0
Separated	1	0.5	3	0.9	4	0.7
Divorced	5	2.3	7	2.2	12	2.2
Widowed	2	0.9	38	11.7	40	7.3
Total	221	100.0	325	100.0	546[a]	100.0
Combined IPDA and SAS (weighted)						
Currently married		62.9		70.7		67.4
Never married		34.3		13.5		22.1
Engaged		1.1		4.2		2.9
Separated		0.1		0.2		0.2
Divorced		1.1		2.4		1.8
Widowed		0.6		9.1		5.6
Total		100.1		100.1		100.0

a. Three cases for whom data were missing are excluded from analysis.

for the Korean population of age 20–69 (especially when the "engaged" category for the sample is combined with "never married").

The relationship between marital status and immigrant category is examined in Table 13. Immigrants admitted under the occupational preferences in the IPDA Survey were more likely to be married than other immigrants. In both the IPDA Survey and the SAS, immigrants admitted under family preference categories (some of which specify single status) were least likely to be married.

Table 12. Marital status of the population of Korea, ages 20–69, by sex: 1985

	Males		Females		Both sexes	
Marital status	Number	%	Number	%	Number	%
Married	7,884,612	69.2	8,274,932	71.4	16,159,544	70.3
Never married	3,303,296	29.0	1,961,911	16.9	5,265,207	22.9
Widowed	139,533	1.2	1,248,609	10.8	1,388,142	6.0
Divorced	65,770	0.6	98,972	0.9	164,742	0.7
Total[a]	11,393,211	100.0	11,584,424	100.0	22,977,635	99.9

Source: R.O.K., NBOS (1987a: Table 7).

a. Excludes "unknown" category (2,643 males and 1,068 females).

Immigrant Profiles

Variations in the demographic characteristics of IPDA respondents by visa type are shown in Table 14. The immigrants exempt from the numerical restrictions (immediate relatives) were older (40.9 years) and more likely to be female (83 percent) than the family preference or occupational preference immigrants. Brothers and sisters of U.S. citizens were also considerably older than other immigrants. With respect to marital status, occupational preference immigrants had the highest incidence of marriage (91 percent). Within the family preference group, quite different profiles are shown for the first, second, and fourth preferences on the one hand, and the fifth preference (siblings of U.S. citizens) on the other. Notable also are the differences shown on many dimensions between primary and beneficiary immigrants. (These differences would be even sharper if our sample were not restricted to ages 18–69). Altogether, Table 14 highlights the impact of U.S. immigration policies on the demographic profiles of immigrant flows.

HUMAN RESOURCES

In the discussion that follows, human resources are construed broadly with a view to understanding the qualities (or endowments) that immigrants bring with them to the United States. In addition to such standard indicators as educational attainment and occupations, we look at several topics that are especially important in the Korean case. Facility with the English language is one such topic; another is the intentions of these immigrants to go into business for themselves. Korean Americans have shown a high propensity for entrepreneurial activity, and one of the explanations for this phenomenon is that Korean immigrants are handicapped in the salaried job market because of their difficulties with spoken English.

Most of the analyses are based on cross-tabulations by sex. For a number of variables, we also look at the breakdown by visa category as a way of assessing the effects of U.S. immigration policy. In addition, compari-

Table 13. Marital status of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and marital status	Immediate relatives		Family preference categories		Occupational preference categories		Others	
	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)								
Currently married or engaged	409	79.1	728	60.2	94	91.3	4	100.0
Never married	14	2.7	450	37.2	7	6.8	0	0.0
Separated	1	0.2	0	0.0	0	0.0	0	0.0
Divorced	11	2.1	19	1.6	2	1.9	0	0.0
Widowed	82	15.9	13	1.1	0	0.0	0	0.0
Total	517	100.0	1,210	100.1	103	100.0	4	100.0
Status adjusters (SAS)								
Currently married	286	85.1	55	71.4	109	90.1	6	75.0
Never married	6	1.8	17	22.1	8	6.6	1	12.5
Separated	2	0.6	1	1.3	0	0.0	0	0.0
Divorced	6	1.8	2	2.6	2	1.7	1	12.5
Widowed	36	10.7	2	2.6	2	1.7	0	0.0
Total[a]	336	100.0	77	100.0	121	100.1	8	100.0

a. Seven cases for whom data were missing are excluded from analysis.

Table 14. Mean age, percentage female, and percentage married among predeparture immigrants, by immigrant visa category: IPDA, 1986

Visa category[a]	Mean age	Female (%)	Married (%)
Immediate relatives[b]	40.9	82.8	68.7
Family preferences			
Total	32.3	48.8	59.3
Primary immigrants	31.2	47.8	95.4
Beneficiaries	36.4	52.9	30.4
First, second, and fourth preferences			
Total	28.0	48.3	41.5
Primary immigrants	27.9	48.4	98.3
Beneficiaries	31.8	45.0	4.0
Fifth preference			
Total	39.0	49.7	87.6
Primary immigrants	41.1	46.1	91.8
Beneficiaries	36.8	53.6	83.0
Occupational preferences			
Total	37.5	50.5	91.3
Primary immigrants	39.1	31.1	93.3
Beneficiaries	36.3	65.5	89.7
All immigrants	35.0	58.5	63.7

a. Excludes special immigrants (SE and SD visa holders).

b. Includes fiancé(e)s (K visa holders).

sons with the SAS sample and with the Korean population are made for some variables, where data are available.

Urban Experience and Education

Korean immigrants tend to come from urban areas. As shown in Table 15, a majority of IPDA respondents (55 percent) came from the primate city of Seoul, whereas just one-quarter of the total Korean population resided in Seoul in 1985. Seoul was even more dominant for SAS respondents, almost three-fourths (73 percent) of whom gave the capital city as their usual place of residence. The first four places listed in Table 15 are predominantly urban, and they account for 71 percent of the 1986 immigrant flow, as compared with 42 percent of the population of Korea in 1985. The fifth place listed, Kyunggi-do, shows an overrepresentation of IPDA respondents. This is the province that surrounds Seoul; it also contains several major U.S. military installations.

Another perspective is provided in Table 16, which shows the current residence of IPDA respondents at the time of the survey, by sex. Males were

Table 15. Usual place of residence, by province, of the population of Korea, predeparture immigrants, and status adjusters (percentage distributions)

Place of residence	Korean population (%)[a]	Predeparture immigrants (IPDA) (%)[b]	Status adjusters (SAS) (%)[b]	Combined IPDA and SAS weighted (%)
Seoul	25.0	55.5	72.6	58.6
Pusan	8.9	4.3	2.3	3.9
Taegu	5.1	3.8	2.5	3.6
Inchun	3.5	5.7	1.1	4.9
Kyunggi-do	12.2	18.5	10.0	17.0
Kang-Won-Do	4.1	1.1	1.7	1.2
Chungchungbud-do	3.4	0.7	0.6	0.7
Chungchungnam-do	7.2	2.3	2.6	2.4
Chullabuk-do	5.1	2.1	1.5	2.0
Chullanam-do	8.6	2.2	0.9	2.0
Kyungsangbuk-do	7.3	1.4	2.1	1.5
Kyungsangnam-do	8.5	1.5	1.1	1.4
Cheju-do	1.1	0.1	0.2	0.1
United States (outside Korea)	na	0.8	0.8	0.8
Total %	100.0	100.0	100.0	100.1
Number	24,407,324	1,834	530[c]	

na = not applicable.

a. Source: R.O.K., NBOS (1987b: Table 2).

b. Refers to the place of residence in Korea before immigration.

c. Nineteen cases for whom data were missing are excluded from analysis.

somewhat more likely to be living in the major metropolitan areas, but among this group of immigrants both men and women were predominantly urban.

The high level of education among recent Korean immigrants has been shown in many studies (e.g., Hurh and Kim 1980; Kim 1978). According to the 1970 U.S. census, Korean Americans were more highly educated than any other Asian American group and had a higher level of education than the total U.S. population. Overall, 71 percent of Korean Americans had completed high school and 36 percent had graduated from college, whereas only 11 percent of the U.S. population consisted of college graduates (Hurh and Kim 1980). Analyses of the 1980 census showed a very high rate of high school graduation (94 percent) among Korean men who had immigrated between 1975 and 1980 at ages 20–29; the comparable figure for

Table 16. Current place of residence of predeparture immigrants, by sex: IPDA, 1986

	Males		Females		Both sexes	
Place of residence	Number	%	Number	%	Number	%
Metropolitan areas[a]	564	75.2	707	66.1	1,271	69.8
City	132	17.6	258	24.1	390	21.4
Town	25	3.3	50	4.7	75	4.1
Village	28	3.7	47	4.4	75	4.1
Unspecified rural area	1	0.1	8	0.7	9	0.5
Total	750	99.9	1,070	100.0	1,820[b]	99.9

a. Metropolitan areas include Seoul, Pusan, Taegu, and Inchun.

b. Excludes 14 respondents who were living in the United States at the time their immigrant visas were issued.

Korean women, however, was 71 percent (Gardner, Robey, and Smith 1985:26).

Educational attainment of the 1986 cohort of adult Korean immigrants is shown in Tables 17 and 18. Among the IPDA Survey respondents, 72 percent had completed high school in Korea before emigration, including 34 percent who had received some college education (Table 17). The educational level among SAS respondents was even higher, with more than half having some college education (Table 18). The mean number of years of schooling for the IPDA sample was 11.7 years, compared with 13.2 for SAS.

The educational pattern by sex shows the existence of substantial inequities favoring males among IPDA and SAS respondents, as well as in the total Korean population. The mean number of years of schooling shows a difference in favor of males of 2.2 years for the IPDA sample (Table 17), 3.1 years in the SAS sample (Table 18), and 2.3 years in the Korean population of comparable ages (Table 19). The marked disparity by sex is particularly evident in data on college education. For example, 48 percent of IPDA male respondents had completed one or more years of college, compared with only 25 percent of female respondents. It is still a common practice in Korea for families with limited resources to send sons to college regardless of their birth order or school achievement, often to the detriment of daughters. In many instances, daughters have to find jobs to help their brothers continue their education.

The figures on mean years of education for men and women combined are as follows: IPDA, 11.7 years; SAS, 13.2 years; Korean population of ages 18–68, 9.0 years. Overall then, recent Korean immigrants are a highly selected group educationally, with respect to the country of origin.

Education data tabulated by visa category show that respondents with low education were concentrated among immediate relatives, a category

Table 17. Educational attainment of predeparture immigrants, by sex: IPDA, 1986

Level of education	Years of education	Males		Females		Both sexes	
		Number	%	Number	%	Number	%
None	0	5	0.7	50	4.7	55	3.0
Elementary school	1	1	0.1	3	0.3	4	0.2
	2	2	0.3	2	0.2	4	0.2
	3	0	0.0	12	1.1	12	0.7
	4	0	0.0	6	0.6	6	0.3
	5	1	0.1	2	0.2	3	0.2
	6	39	5.1	145	13.5	184	10.0
	1–6	43	5.7	170	15.8	213	11.6
Middle school	7	2	0.3	11	1.0	13	0.7
	8	4	0.5	13	1.2	17	0.9
	9	44	5.8	102	9.5	146	8.0
	7–9	50	6.6	126	11.7	176	9.6
High school	10	10	1.3	21	2.0	31	1.7
	11	28	3.7	18	1.7	46	2.5
	12	263	34.6	424	39.5	687	37.5
	10–12	301	39.6	463	43.2	764	41.7
College or university	13	37	4.9	26	2.4	63	3.4
	14	83	10.9	81	7.6	164	8.9
	15	23	3.0	26	2.4	49	2.7
	16	174	22.9	114	10.6	288	15.7
	13–16	317	41.7	247	23.0	564	30.8
Graduate school (including medical university)	17	9	1.2	7	0.7	16	0.9
	18	29	3.8	10	0.9	39	2.1
	22	7	0.9	0	0.0	7	0.4
	17+	45	5.9	17	1.6	62	3.4
Total		761	100.2	1,073	100.0	1,834	100.1
Mean		12.9		10.7		11.7	

that includes parents, children of ages 18–20, and spouses of U.S. citizens (Table 20). The occupational preference immigrants had a superior level of education (as expected) among status adjusters, but among predeparture immigrants the mean educational level for those admitted on occupational grounds was about the same as for family preference immigrants.

Table 18. Educational attainment of status adjusters, by sex: SAS, 1986

Level of education	Years of education	Males		Females		Both sexes	
		Number	%	Number	%	Number	%
None	0	2	0.9	15	4.7	17	3.2
Elementary school	1	0	0.0	2	0.6	2	0.4
	2	1	0.5	1	0.3	2	0.4
	3	0	0.0	1	0.3	1	0.2
	4	0	0.0	2	0.6	2	0.4
	5	0	0.0	0	0.0	0	0.0
	6	4	1.8	26	8.2	30	5.6
	1–6	5	2.3	32	10.0	37	6.9
Middle school	7	3	1.4	5	1.6	8	1.5
	8	0	0.0	3	0.9	3	0.6
	9	10	4.6	25	7.8	35	6.5
	7–9	13	5.9	33	10.3	46	8.6
High school	10	1	0.5	3	0.9	4	0.7
	11	1	0.5	7	2.2	8	1.5
	12	31	14.2	89	27.9	120	22.3
	10–12	33	15.1	99	31.0	132	24.5
College or university	13	4	1.8	9	2.8	13	2.4
	14	24	11.0	30	9.4	54	10.0
	15	9	4.1	13	4.1	22	4.1
	16	83	37.9	74	23.2	157	29.2
	13–16	120	54.8	126	39.5	246	45.7
Graduate school	17+	46	21.0	14	4.4	60	11.2
Total		219	100.0	319	99.9	538[b]	100.1
Mean[a]		15.1		12.0		13.2	

a. Assumes 20 years is average for 17+.

b. Eleven cases for whom data were missing are excluded from analysis.

English Language

One of the most important factors affecting cultural adaptation is language, and English language facility has often been cited as a major problem for Korean immigrants to the United States. In the IPDA Survey, respondents were asked to evaluate their own English proficiency along three dimensions—reading, writing, and speaking ability (Table 21). Ratings of either "poor" or "fair" were given by over 90 percent of respondents for each of the three dimensions, with over 50 percent saying "poor." Respon-

Table 19. Educational attainment of the population of Korea, ages 18–68, by sex: 1985

Level of education[a]	Years of education[b]	Males (%)	Females (%)	Both sexes (%)
None	0	5.9	15.9	11.0
Elementary school	1–6	18.4	28.5	23.6
Middle school	7–9	18.4	20.2	19.3
High school	10–12	35.5	26.7	31.0
Junior college or more	13+	21.8	8.7	15.1
Total		100.0	100.0	100.0
Mean		10.2	7.9	9.0

Source: R.O.K., NBOS (1987B: Table 4).

a. Excludes 1,605 males and 2,177 females for whom level of education was unknown.

b. Includes respondents who attended a grade but did not complete it.

dents rated their speaking and writing abilities somewhat lower than their reading ability. Only 6.3 percent indicated that their spoken English was good or excellent. Female immigrants rated their English ability even lower than males, with more than 60 percent rating themselves "poor" on all three dimensions.

The SAS questionnaire asked only about speaking ability in English. Table 22 shows this dimension, cross-classified with immigrant category, for both IPDA and SAS respondents. The status adjusters, who had been in the United States for varying lengths of time when they completed the questionnaire, were more likely to rate their speaking ability as "fair" or better. For both IPDA and SAS groups, the immigrants who were admitted under occupational preferences rated their English ability higher than the other groups. Even among this select group, however, fewer than one in four immigrants said that their speaking ability in English was "good" or "excellent."

IPDA respondents were also asked how difficult they would find it to explain in English their reasons for immigrating to the United States (Table 23). Only 9.4 percent of them indicated that they would not find it difficult at all, contrasted with 42 percent who said that it would be extremely difficult.

A more objective evaluation of the IPDA respondents' English-speaking ability is available from information on the respondent's need for an interpreter during the visa interview with American consular officials in Seoul. Because one of the three American consuls interviewed applicants in Korean, the respondents whom he interviewed (35 percent) could not be evaluated by this criterion. Excluding the above cases, only 9.2 percent in-

Table 20. Educational attainment of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and years of education	Immediate relatives		Family preference categories		Occupational preference categories		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)										
0–6	169	33.5	74	6.1	13	12.6	0	0.0	256	14.1
7–12	247	48.9	651	53.8	42	40.8	0	0.0	940	51.6
13+	89	17.6	485	40.1	48	46.6	4	100.0	626	34.4
Total	505[a]	100.0	1,210	100.0	103	100.0	4	100.0	1,822	100.1
Mean	9.3		12.6		12.8		15.8		11.7	
Status adjusters (SAS)										
0–6	46	13.9	4	5.3	3	2.5	0	0.0	53	9.9
7–12	146	44.2	17	22.7	13	10.8	1	12.5	177	33.3
13+	138	41.8	54	72.0	104	86.7	7	87.5	303	57.0
Total[b]	330	99.9	75	100.0	120	100.0	8	100.0	533	100.0
Mean	11.9		14.7		15.8		16.5		13.3	
Weighted average of IPDA and SAS means	9.7		12.9		13.3		16.0		12.0	

a. Excludes 12 cases belonging to the "literate, level unspecified" category.

b. Sixteen cases for whom data were missing are excluded from analysis.

Table 21. English proficiency of predeparture immigrants, by sex: IPDA, 1986

Proficiency	Males Number	Males %	Females Number	Females %	Both sexes Number	Both sexes %
Reading ability						
Excellent	24	3.2	12	1.1	36	2.0
Good	85	11.2	44	4.1	129	7.0
Fair	326	42.8	370	34.5	696	37.9
Poor	326	42.8	647	60.3	973	53.1
Total	761	100.0	1,073	100.0	1,834	100.0
Writing ability						
Excellent	14	1.8	5	0.5	19	1.0
Good	51	6.7	26	2.4	77	4.2
Fair	306	40.2	277	25.8	583	31.8
Poor	390	51.3	765	71.3	1,155	63.0
Total	761	100.0	1,073	100.0	1,834	100.0
Speaking ability						
Excellent	16	2.1	8	0.8	24	1.3
Good	51	6.7	41	3.8	92	5.0
Fair	257	33.8	296	27.6	553	30.2
Poor	437	57.4	728	67.8	1,165	63.5
Total	761	100.0	1,073	100.0	1,834	100.0

dicated they did *not* need an interpreter for their visa interview (Table 24). The remaining 91 percent depended on an interpreter to some extent, with 69 percent relying entirely on an interpreter. This result corresponds roughly to the percentage of IPDA respondents who evaluated their English-speaking ability as poor (64 percent), as shown in Table 22.

In evaluating these findings on difficulties with the English language, it is relevant to note that the majority of IPDA respondents had a high school education and 83 percent had studied English during their formal schooling (Table 25). More than 70 percent of IPDA respondents had studied English for more than five years. In addition, almost half had studied English outside their formal schooling, such as through a private tutor or a language school (data not shown). Although English is taught widely in high schools and colleges in Korea, opportunities for its practical use are extremely limited because of the emphasis on written grammar. As a result, even many college graduates are unable to engage in simple English conversations. The language barrier among Korean immigrants continues to signal a potentially serious problem in their adaptation in the United States.

Table 22. English-speaking proficiency of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and proficiency	Immediate relatives		Family preference categories		Occupational preference categories		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)										
Excellent	4	0.8	13	1.1	7	6.8	0	0.0	24	1.3
Good	25	4.8	50	4.1	17	16.5	0	0.0	92	5.0
Fair	163	31.5	367	30.3	23	22.3	0	0.0	553	30.2
Poor	325	62.9	780	64.5	56	54.4	4	100.0	1,165	63.5
Total	517	100.0	1,210	100.0	103	100.0	4	100.0	1,834	100.0
Status adjusters (SAS)										
Excellent	9	2.7	2	2.6	11	9.1	0	0.0	22	4.1
Good	39	11.8	11	14.3	14	11.6	1	12.5	65	12.1
Fair	99	29.8	38	49.4	60	49.6	2	25.0	199	37.0
Poor	185	55.7	26	33.8	36	29.8	5	62.5	252	46.8
Total	332	100.0	77	100.1	121	100.1	8	100.0	538[a]	100.0

[a] Eleven cases for whom data were missing are excluded from analysis.

Table 23. Perceived difficulty of explaining in English reasons for immigrating, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Difficulty	Number	%	Number	%	Number	%
Extremely difficult	256	33.6	519	48.4	775	42.3
Moderately difficult	126	16.6	169	15.8	295	16.1
A little difficult	284	37.3	306	28.5	590	32.2
Not difficult at all	95	12.5	78	7.3	173	9.4
Don't know	0	0.0	1	0.1	1	0.1
Total	761	100.0	1,073	100.1	1,834	100.1

Table 24. Dependence upon an interpreter for the visa interview, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Dependence	Number	%	Number	%	Number	%
Entirely dependent on an interpreter	314	64.0	517	73.2	831	69.4
Partly dependent on an interpreter	124	25.3	132	18.7	256	21.4
Did not need an interpreter	53	10.8	57	8.1	110	9.2
Total	491	100.1	706	100.0	1,197	100.0

Note: Excludes 637 cases for whom an interpreter was not needed because the U.S. consular officer was bilingual.

Special Training

To examine training received other than formal schooling, the IPDA survey asked about any special education or training acquired and any licenses or certificates possessed. Fewer than one-third of IPDA respondents had received additional education or training (Table 26). Among those, one-fourth (26 percent) had received language training (language not specified). Language was the major subject of training for both men and women, but gender differences emerged in other subjects. One-fifth of males had mechanical training, which was followed in frequency by electrical training (6.5 percent) and construction-related training (6.5 percent). The second most popular training for females was "beauty culture" (19 percent), followed by dressmaking (16 percent) and data processing (6.8 percent).

Forty-four percent of predeparture immigrants reported having a work-related license or certificate, most of whom cited a driver's license as a

Table 25. Years of formal schooling that included English instruction, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Number of years	Number	%	Number	%	Number	%
0	61	8.0	245	22.9	306	16.7
1	3	0.4	8	0.7	11	0.6
2	6	0.8	10	0.9	16	0.9
3	42	5.5	97	9.1	139	7.6
4	13	1.7	14	1.3	27	1.5
5	24	3.2	19	1.8	43	2.3
1–5	88	11.6	148	13.8	236	12.9
6	260	34.2	418	39.0	678	37.0
7	37	4.9	24	2.2	61	3.3
8	79	10.4	81	7.6	160	8.7
9	19	2.5	25	2.3	44	2.4
10	171	22.5	113	10.6	284	15.5
6–10	566	74.5	661	61.7	1,227	67.0
11	6	0.8	4	0.4	10	0.6
12	28	3.7	12	1.1	40	2.2
14	3	0.4	1	0.1	4	0.2
15	4	0.5	0	0.0	4	0.2
11–15	41	5.4	17	1.6	58	3.2
16	1	0.1	0	0.0	1	0.1
17	2	0.3	0	0.0	2	0.1
20	1	0.1	0	0.0	1	0.1
16+	4	0.5	0	0.0	4	0.2
Total	760	100.0	1,071	100.0	1,831	100.0
Mean	6.9		5.0		5.8	

Note: Table excludes one case for whom there was no answer and two cases who gave a "don't know" response.

credential (Table 27). Men were much more likely than women to mention a driver's license. Other credentials mentioned by men included a license or certificate in mechanics (13 percent of those who had any credential), teaching (6.0 percent), medicine (3.1 percent) and engineering (2.4 percent). A substantial proportion of women had a secretarial certificate (21 percent of those who had any credential), followed by teaching (19 percent) and nursing (7.4 percent).

Such training or other education received in Korea may or may not be helpful in the United States. IPDA respondents were asked in a different section of the questionnaire what kind of skills they had that would be help-

Table 26. Nonformal training of predeparture immigrants, by sex: IPDA, 1986

Training	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Whether received						
Had training	230	30.2	307	28.6	537	29.3
Did not have training	531	69.8	766	71.4	1,297	70.7
Total	761	100.0	1,073	100.0	1,834	100.0
First kind of nonformal training, if received						
Language school	61	26.5	79	25.7	140	26.1
Beauty culture	0	0.0	57	18.6	57	10.6
Dressmaking/tailoring/designing	7	3.0	50	16.3	57	10.6
Mechanical	46	20.0	1	0.3	47	8.8
Data processing	14	6.1	21	6.8	35	6.5
Medical	9	3.9	20	6.5	29	5.4
Other vocational/trade courses	21	9.1	8	2.6	29	5.4
Clerical	2	0.9	17	5.5	19	3.5
Electrical	15	6.5	2	0.7	17	3.2
Driving	11	4.8	5	1.6	16	3.0
Other institute	3	1.3	13	4.2	16	3.0
Construction-related skill or training	15	6.5	0	0.0	15	2.8
Crafts	3	1.3	10	3.3	13	2.4
Cooking-related skill or training	3	1.3	9	2.9	12	2.2
Law enforcement	7	3.0	0	0.0	7	1.3
CPA review/financial	3	1.3	3	1.0	6	1.1
Telephone operator	1	0.4	5	1.6	6	1.1
Flower arrangement	1	0.4	4	1.3	5	0.9
Sales	2	0.9	3	1.0	5	0.9
Agriculture	3	1.3	0	0.0	3	0.6
Drawing/drafting	1	0.4	0	0.0	1	0.2
Hotel maintenance	1	0.4	0	0.0	1	0.2
Legal training	1	0.4	0	0.0	1	0.2
Total	230	99.7	307	99.9	537	100.0

Table 27. License or certificate obtained by predeparture immigrants, by sex: IPDA, 1986

License or certificate	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Whether received						
Received	450	59.1	351	32.7	801	43.7
Not received	311	40.9	722	67.3	1,033	56.3
Total	761	100.0	1,073	100.0	1,834	100.0
First kind of license or certificate, if received						
Driver's license	319	70.9	134	38.2	453	56.6
Teacher	21	4.7	49	14.0	70	8.7
Clerical/secretarial	8	1.8	61	17.4	69	8.6
Mechanic	31	6.9	4	1.1	35	4.4
Nurse	0	0.0	26	7.4	26	3.3
Barber/beautician	1	0.2	23	6.6	24	3.0
Nurse aid/clinical tester	2	0.4	16	4.6	18	2.3
Other	8	1.8	8	2.3	16	2.0
Medical doctor	13	2.9	1	0.3	14	1.8
Cooking	7	1.6	5	1.4	12	1.5
Engineer	11	2.4	0	0.0	11	1.4
Dressmaking/tailoring	3	0.7	6	1.7	9	1.1
Drawing/draftsman	6	1.3	0	0.0	6	0.8
Martial arts instructor	4	0.9	1	0.3	5	0.6
Telephone operator	0	0.0	5	1.4	5	0.6
Computer programmer	3	0.7	1	0.3	4	0.5
Nutritionist	0	0.0	4	1.1	4	0.5
Pharmacist	0	0.0	4	1.1	4	0.5
Architect	3	0.7	0	0.0	3	0.4
CPA/accountant	3	0.7	0	0.0	3	0.4
Hotel maintenance	2	0.4	1	0.3	3	0.4
Flower arrangement instructor	1	0.2	1	0.3	2	0.2
Aeronautics/aircraft pilot	1	0.2	0	0.0	1	0.1
Dentist	1	0.2	0	0.0	1	0.1
Merchant Marine	1	0.2	0	0.0	1	0.1
Optometrist	0	0.0	1	0.3	1	0.1
Village health worker	1	0.2	0	0.0	1	0.1
Total	450	100.0	351	100.1	801	100.1

Table 27. *(continued)*

License or certificate	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Second kind of license or certificate, if received						
Driver's license	36	38.3	33	37.9	69	38.1
Mechanic	27	28.7	0	0.0	27	14.9
Teacher	6	6.4	16	18.4	22	12.2
Clerical/secretarial	4	4.3	14	16.1	18	9.9
Other	7	7.4	3	3.4	10	5.5
Cooking	3	3.2	5	5.7	8	4.4
Flower arrangement instructor	0	0.0	6	6.9	6	3.3
Martial arts instructor	5	5.3	0	0.0	5	2.8
Dressmaking/tailoring	1	1.1	3	3.4	4	2.2
Nurse aid/clinical tester	0	0.0	3	3.4	3	1.7
Computer programmer	1	1.1	1	1.2	2	1.1
Drawing/draftsman	2	2.1	0	0.0	2	1.1
Engineer	0	0.0	1	1.2	1	0.6
Medical doctor	1	1.1	0	0.0	1	0.6
Merchant Marine	1	1.1	0	0.0	1	0.6
Nutritionist	0	0.0	1	1.2	1	0.6
Telephone operator	0	0.0	1	1.2	1	0.6
Total	94	100.1	87	100.0	181	100.2

ful in obtaining jobs in the United States. The wording of this question in the Korean language may have emphasized blue-collar or trade skills, but the response pattern is still of interest. A majority of the respondents mentioned one or more skills they thought would be helpful in obtaining jobs in the United States (Table 28). The skills mentioned most frequently by men pertained to auto mechanics, repairs, and construction. Among women, the skills most frequently cited were dressmaking, secretarial, and "beauty culture" skills, in that order. Korean immigrants seem to have acquired skills differentiated by sex along traditional lines.

EMPLOYMENT PATTERNS AND EXPECTATIONS

The findings just presented on education and skills reveal something about what jobs these new immigrants were qualified for; data on their work experience will help to round out that picture. In this section we first look at the types of activity that IPDA respondents were engaged in during the year before their departure and, for those who were working, the types

Table 28. Skills of predeparture immigrants that they considered helpful for obtaining jobs in the United States, by sex: IPDA, 1986

	Males		Females		Both sexes	
Skills	Number	%	Number	%	Number	%
Number of skills mentioned						
None[a]	321	42.2	609	56.8	930	50.7
1	322	42.3	376	35.0	698	38.1
2	104	13.7	73	6.8	177	9.7
3	12	1.6	13	1.2	25	1.4
4	2	0.3	2	0.2	4	0.2
Total	761	100.1	1,073	100.0	1,834	100.1
Mean	0.8		0.5		0.6	
Kinds of skill (multiple mentions, up to 4 per respondent)						
Sewing/dressmaking/tailoring	22	3.8	161	28.3	183	16.0
Driving/auto mechanics	93	16.2	4	0.7	97	8.5
Other	34	5.9	60	10.5	94	8.2
Repairs/appliance/repainting	89	15.5	0	0.0	89	7.8
Secretarial skills (e.g., typing, steno, receptionist)	5	0.9	71	12.5	76	6.7
Construction-related, infrastructure	71	12.4	0	0.0	71	6.2
Beauty culture	2	0.4	62	10.9	64	5.6
Handcraft	31	5.4	31	5.5	62	5.4
Medical-related (doctor, nurse, clinical pathologist)	19	3.3	30	5.3	49	4.3
Electrician	45	7.8	1	0.2	46	4.0
Computer programming/word processing	20	3.5	25	4.4	45	3.9
Cooking/baking	21	3.7	24	4.2	45	3.9
Bookkeeping/accounting	8	1.4	24	4.2	32	2.8
Trading	24	4.2	5	0.9	29	2.5
Management	21	3.7	5	0.9	26	2.3
Teaching	5	0.9	19	3.3	24	2.1
Farming/fishing/husbandry/gardening	18	3.1	4	0.7	22	1.9
Babysitting/nursemaid	1	0.2	17	3.0	18	1.6
Carpentry/house painting	14	2.4	0	0.0	14	1.2
Flower arrangement	1	0.2	11	1.9	12	1.1

Table 28. *(continued)*

Skills	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Sport	9	1.6	2	0.4	11	1.0
Waiting on tables	2	0.4	9	1.6	11	1.0
Photography	9	1.6	0	0.0	9	0.8
Laundry	7	1.2	1	0.2	8	0.7
Cosmetology	2	0.4	3	0.5	5	0.4
Vegetable/fruit	1	0.2	0	0.0	1	0.1
Total	574	100.3	569	100.1	1,143	100.0

a. The number of "none" answers may be misleading because the question in Korean suggests blue-collar or special trade skills, rather than all employment-related skills.

of job they held. Comparisons of occupational distributions between IPDA, SAS, and the Korean population are also made, and subjective ratings of job satisfaction are examined. Finally, a profile of the IPDA sample by visa category reveals how U.S. immigration policy has structured the immigrant stream along several educational and work-related dimensions.

Occupations

Just over half (52 percent) of the IPDA respondents were employed during the 12 months before their emigration (Table 29). This low level of economic activity was due mainly to the high proportion of housewives, comprising 57 percent of Korean women and 34 percent of the whole sample. The next most frequently mentioned nonwork activity status was student (6.1 percent), which was especially common among males (9.5 percent). Male immigrants were more than twice as likely to be employed (75 percent) as were female immigrants (36 percent) in the year preceding migration. The pattern for status adjusters was fairly similar (Table 30) with respect to their activity status in the United States at the time they adjusted from nonimmigrant to immigrant status. These data reflect to some extent, however, employment constraints associated with certain nonimmigrant visas.

The IPDA respondents who were employed before departure were engaged in highly diverse types of work (Table 31). It is notable that one out of four Korean immigrants was self-employed before departure, self-employment being slightly less prevalent for women than for men. Salaried employment in the private sector (67 percent) was the most common type of employment. With respect to types of occupations, more than one-third of IPDA respondents were working as either professionals (15 percent) or managers (19 percent). The proportion in professional and technical occupations was higher for women than for men (19 percent compared with 12 percent), but managerial jobs were allocated disproportionately to

Table 29. Activity status of predeparture immigrants during 12 months before departure, by sex: IPDA, 1986

	Males		Females		Both sexes	
Status	Number	%	Number	%	Number	%
Employed	572	75.2	386	36.0	958	52.2
Not employed/looking for work	11	1.4	4	0.4	15	0.8
Student	72	9.5	40	3.7	112	6.1
Housekeeping	0	0.0	616	57.4	616	33.6
Retired	35	4.6	6	0.6	41	2.2
Preparing to emigrate	66	8.7	20	1.9	86	4.7
Other	5	0.7	1	0.1	6	0.3
Total	761	100.1	1,073	100.1	1,834	99.9

Table 30. Current activity status of status adjusters, by sex: SAS, 1986

	Males		Females		Both sexes	
Status	Number	%	Number	%	Number	%
Employed[a]	156	71.9	101	32.3	257	48.5
Not employed	24	11.1	39	12.5	63	11.9
Student	24	11.1	30	9.6	54	10.2
Housekeeping	4	1.8	134	42.8	138	26.0
Retired	2	0.9	4	1.3	6	1.1
Part-time employed and student combined	6	2.8	5	1.6	11	2.1
Other	1	0.5	0	0.0	1	0.2
Total	217	100.1	313	100.1	530[b]	100.0

a. Full-time or part-time.

b. Nineteen cases for whom data were missing are excluded from analysis.

men (23 percent compared with 11 percent for women). Men were also more likely to be employed in crafts and production work, whereas women were more likely to hold clerical and sales jobs. Fewer than 5 percent of Korean immigrants were employed as farmers in the year before departure.

For the status adjusters, we can look at occupations at two points in time: just before their departure for the United States in nonimmigrant status, and at the time of their adjustment from nonimmigrant to immigrant status in the United States. Among the 58 percent who were working before departure (Table 32), just over one-third were employed in professional or technical occupations, roughly double the proportion among IPDA respondents. Women were more likely than men to be professionals and,

Table 31. Type of employment and occupation of predeparture immigrants employed in last 12 months, by sex: IPDA, 1986

	Male		Female		Both sexes	
Employment/occupation	Number	%	Number	%	Number	%
Type of employment						
Self-employed	151	26.4	87	22.5	238	24.8
Working for the government	22	3.9	24	6.2	46	4.8
Working on a farm	12	2.1	17	4.4	29	3.0
Working in a company or business	386	67.5	258	66.8	644	67.2
No answer	1	0.2	0	0.0	1	0.1
Total	572	100.1	386	99.9	958	99.9
Occupation						
Professional/technical/related work	71	12.4	73	18.9	144	15.0
Administrative/executive/managerial work	133	23.3	44	11.4	177	18.5
Clerical work	91	15.9	90	23.3	181	18.9
Business proprietorship	28	4.9	21	5.4	49	5.1
Sales	45	7.9	49	12.7	94	9.8
Farming/fishing/hunting/logging/mining	26	4.6	21	5.4	47	4.9
Transport/communication	35	6.1	2	0.5	37	3.9
Crafts/production process work/other labor n.e.c.	108	18.9	32	8.3	140	14.6
Service/sport/recreation	35	6.1	54	14.0	89	9.3
Total	572	100.1	386	99.9	958	100.0

n.e.c. = not elsewhere classified.

also like the IPDA group, to have clerical, sales, or service occupations. Men were much more likely to be managers.

At the time of adjustment to immigrant status (Table 33), fewer of this group were in professional and technical occupations, especially among women. However, that category was still largest for women (26 percent), followed by service occupations (25 percent), sales (15 percent), and crafts or production work (12 percent). Among men, one-fourth were in professional and technical occupations (25 percent) when they adjusted status, whereas 24 percent were business proprietors. It appears that among status adjusters there is significant downward mobility for women at the time of migration.

Table 32. Work status and occupation of status adjusters just prior to their departure from Korea, by sex: SAS, 1986

	Males		Females		Both sexes	
Status/occupation	Number	%	Number	%	Number	%
Work status						
Working	162	73.6	153	48.0	315	58.4
Not working	58	26.4	166	52.0	224	41.6
Total	220	100.0	319	100.0	539[a]	100.0
Occupation						
Professional/technical/ related work	45	27.8	63	41.2	108	34.3
Administrative/executive/ managerial work	27	16.7	3	2.0	30	9.5
Clerical work	11	6.8	22	14.4	33	10.5
Sales	3	1.9	17	11.1	20	6.3
Farming/fishing/hunting/ logging/mining	3	1.9	3	2.0	6	1.9
Transport/communication	3	1.9	0	0.0	3	1.0
Crafts/production process work/other labor n.e.c.	7.3	16	9.9	7	4.6	23
Service/sport/recreation	5	3.1	15	9.8	20	6.3
Other	49	30.2	23	15.0	72	22.9
Total	162	100.2	153	100.1	315	100.0

n.e.c. = not elsewhere classified.

a. Ten cases for whom data were missing are excluded from analysis.

The immigrants in our two surveys were much more likely to be engaged in professional or managerial occupations than the Korean population as a whole (Table 34). The figures for professional and technical workers were 15 percent for IPDA and 34 percent for SAS, but only 6.1 percent for the population of Korea. Further, 19 percent of IPDA respondents and 9.2 percent of SAS respondents were administrators or managers before departure, compared with only 1.4 percent of the total economically active population in Korea. Another contrast is that farmers represented 4.9 percent of IPDA survey respondents and 1.9 percent of SAS respondents, compared with 23 percent of the total economically active Korean population.

When occupation during the past 12 months is broken down by visa category (Table 35), the IPDA tabulations show that immigration policy has a marked effect. Immigrants admitted under the occupational preference categories were much more likely to have been involved in administrative or managerial work and to a lesser degree, in crafts or production and in

Table 33. Work status and current occupation of status adjusters, by sex: SAS, 1986

Status/occupation	Males Number	Males %	Females Number	Females %	Both sexes Number	Both sexes %
Work status						
Currently working	162	74.7	106	33.9	268[a]	50.6
Not currently working	55	25.4	207	66.1	262	49.4
Total	217	100.1	313	100.0	530[b]	100.0
Occupation						
Professional/technical/related work	41	25.3	28	26.4	69	25.8
Administrative/executive/managerial work	19	11.7	6	5.7	25	9.3
Clerical work	3	1.9	7	6.6	10	3.7
Business proprietorships	38	23.5	6	5.7	44	16.4
Sales	18	11.1	16	15.1	34	12.7
Farming/fishing/hunting/logging/mining	0	0.0	0	0.0	0	0.0
Transport/communication	5	3.1	0	0.0	5	1.9
Crafts/production process work/other labor n.e.c.	19	11.7	13	12.3	32	11.9
Service/sport/recreation	11	6.8	27	25.5	38	14.2
Other	8	4.9	3	2.8	11	4.1
Total	162	100.0	106	100.1	268	100.0

n.e.c. = not elsewhere classified.

a. Includes 11 "combined part-time employed and students" (six males and five females).

b. Nineteen cases for whom data were missing are excluded from analysis.

professional or technical work, than in other occupations. Immediate relatives, in contrast, were overrepresented in sales, farming, and service occupations. Persons entering under family preferences were particularly likely to be in clerical occupations.

Tabulations for the SAS study, where occupation refers to current job in the United States at the time of adjusting status, show a very different pattern (Table 36). Almost half (49 percent) of the status adjusters entering under occupational preference categories had a professional or technical job, compared with 15 percent of immediate relatives and 10 percent of family preference immigrants. By contrast, higher proportions of those adjusting on the basis of family connections had clerical, crafts and production, and service occupations than did those adjusting on occupational grounds.

As the IPDA and SAS data indicate, Korean immigrants entering under family provisions (both immediate family and family preference

Table 34. Occupational distribution of the population of Korea, by sex: 1986

	Males		Females		Both sexes	
Occupation	Number (1,000)	%	Number (1,000)	%	Number (1,000)	%
Professional/technical/related work	594	6.4	345	5.6	939	6.1
Administrative/managerial work	216	2.3	8	0.1	223	1.4
Clerical/related work	1,143	12.2	659	10.7	1,802	11.6
Sales	1,238	13.3	1,117	18.1	2,355	15.2
Service	649	6.9	1,022	16.6	1,670	10.8
Agriculture/animal husbandry/forestry/fishing/hunting	2,007	21.5	1,614	26.2	3,621	23.4
Production/related work/transport equipment operations/labor	3,493	37.4	1,401	22.7	4,894	31.6
Total	9,339	100.0	6,165	100.0	15,505	100.1

Source: R.O.K., NBOS (1986).

categories) represent a diverse range of skills, including white-collar, blue-collar, technical, and service occupations. They thus have the potential for filling a variety of niches in the U.S. job market, although they may in fact be channeled into a narrower range of jobs through the functioning of family networks that tend to facilitate entry into a distinctive labor market for immigrants. Even those admitted on occupational grounds have a wider range of work patterns than one might expect, including many in managerial roles.

Effects of Visa Categories

It is useful to pull together a variety of data on human resources to gauge the impact of visa requirements on immigrant flows. Table 37 provides a detailed breakdown of characteristics of IPDA respondents by visa categories, distinguishing between primary immigrants (those who were petitioned under the provisions of U.S. immigration law) and beneficiaries (a category made up of spouses and children of the primary immigrants, i.e., those having "derivative" immigration status). The distinction between primary immigrants and beneficiaries is often ignored in immigration studies because it complicates analyses, because data on this distinction often are not available, and because it is not clear conceptually how one really should treat this distinction. On the one hand, it is the primary immigrants whose characteristics are a direct reflection of policy provisions; that is, they are the subject of petitions from relatives or job-related petitions from employ-

Table 35. Occupation of predeparture immigrants during 12 months before departure, by immigrant visa category: IPDA, 1986

Occupation	Immediate relatives		Family preference		Occupational preference		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Professional/technical/related work	29	14.7	101	14.6	12	18.5	2	100.0	144	15.0
Administrative/executive/managerial work	26	13.2	130	18.7	21	32.3	0	0.0	177	18.5
Clerical work	28	14.2	144	20.8	9	13.9	0	0.0	181	18.9
Business proprietorship	10	5.1	38	5.5	1	1.5	0	0.0	49	5.1
Sales	34	17.3	59	8.5	1	1.5	0	0.0	94	9.8
Farming/fishing/hunting/logging/mining	23	11.7	24	3.5	0	0.0	0	0.0	47	4.9
Transport/communication	2	1.0	34	4.9	1	1.5	0	0.0	37	3.9
Crafts/production process work/other labor n.e.c.	13	6.6	113	16.3	14	21.5	0	0.0	140	14.6
Service/sport/recreation	32	16.2	51	7.4	6	9.2	0	0.0	89	9.3
Total	197[a]	100.0	694	100.2	65	99.9	2	100.0	958	100.0

n.e.c. = not elsewhere classified.

a. Includes K visa holders.

Table 36. Current occupation of employed status adjusters, by immigrant visa category: SAS, 1986

Occupation	Immediate relatives		Family preference categories		Occupational preference categories		Other	
	Number	%	Number	%	Number	%	Number	%
Professional/technical/related work	18	15.1	6	10.2	41	48.8	4	100.0
Administrative/executive/managerial work	8	6.7	6	10.2	11	13.1	0	0.0
Clerical work	5	4.2	4	6.8	1	1.2	0	0.0
Business proprietorship	21	17.6	10	16.9	12	14.3	0	0.0
Sales	16	13.4	9	15.3	9	10.7	0	0.0
Transport/communication	1	0.8	3	5.1	1	1.2	0	0.0
Crafts/production process work/other labor n.e.c.	22	18.5	9	15.3	1	1.2	0	0.0
Service/sport/recreation	24	20.2	10	16.9	4	4.8	0	0.0
Other	4	3.4	2	3.4	4	4.8	0	0.0
Total	119	99.9	59	100.1	84	100.1	4	100.0

Note: Table includes 11 ''combined part-time employed and students.'' Twenty-one cases for whom data were missing are excluded from analysis.

n.e.c. = not elsewhere classified.

Table 37. Socioeconomic characteristics of predeparture immigrants, by immigrant visa category: IPDA, 1986

Immigrant category[a]	Mean years of education	Some college (%)	Difficulty explaining in English (%)	Profes- sional/ technical job in Korea (%)	Self- employed in Korea (%)	Mean number of skills	Expecting to work in U.S. (%)	Expecting to start business in U.S. (%)
Immediate relatives[b]	9.3[c]	17.2	90.3	14.7	20.8	0.4	62.4	30.1
Family preferences								
Total	12.6	40.1	92.6	14.6	26.0	0.7	93.3	73.7
Primary immigrants	12.8	42.3	92.2	15.0	23.7	0.7	95.7	75.3
Beneficiaries	11.9	31.2	92.9	5.7	37.4	0.7	90.8	72.3
First, second, fourth preferences								
Total	13.0	44.4	92.6	16.7	17.7	0.7	93.0	66.3
Primary immigrants	13.0	44.7	92.5	16.6	17.3	0.7	94.9	66.1
Beneficiaries	12.3	35.0	92.6	22.2	33.3	0.7	91.7	66.7
Fifth preference								
Total	12.0	33.2	92.5	11.2	39.2	0.7	93.8	85.0
Primary immigrants	12.2	35.4	91.8	11.1	40.1	0.8	96.7	86.4
Beneficiaries	11.9	30.8	93.3	11.3	37.7	0.6	90.6	83.5
Occupational preferences								
Total	12.8	46.6	68.0	18.5	26.2	0.8	96.1	68.0
Primary immigrants	13.2	55.6	51.1	22.5	12.5	1.1	100.0	66.7
Beneficiaries	12.6	39.7	81.0	12.0	48.0	0.6	93.1	69.0
All immigrants	11.7	34.1	90.5	15.0	24.8	0.6	84.7	61.0

a. Excludes special immigrants (SE and SD visa holders).

b. Includes fiancé(e)s.

c. Excludes 12 cases belonging to the "literate, level unspecified" category.

ers. On the other hand, it is the combination of primary immigrants and beneficiaries who actually constitute the legal immigration flow that is the ultimate outcome of policy.

The comparisons in Table 37 indicate that in almost all cases the beneficiaries in the IPDA sample were slightly "lower" than the primary immigrants on a variety of socioeconomic dimensions, such as education, English ability, and skills. With respect to children as beneficiaries, it is important to note that the IPDA sample did not include anyone under age 18. Thus, the small differences shown in Table 37 for many dimensions would be larger if the entire immigrant flow were included. Among the largest differences between primary immigrants and beneficiaries were those pertaining to the group of occupational preference immigrants. College education, difficulty with English, and previous job experience all differed substantially between primary occupational preference immigrants and their spouses and children.

Comparison of the columns in Table 37 reveals important patterns. On one hand, the indices for immediate relatives—those admitted outside the quota system—were strikingly low on almost all dimensions. On the other, the two major groups admitted under the preference system—family preferences and occupational preferences—were quite similar on many dimensions. Another pattern that stands out is that the fifth preference immigrants—brothers and sisters—were distinctive in interesting ways. Relatively few of them had college education, but they were more likely than others to have been self-employed in Korea and substantially more likely to have expected to start a business in the United States. Other IPDA data show that fifth preference Korean immigrants worked more hours per week and brought to the United States much more capital than other immigrants. Findings such as these should be considered in policy proposals to cut back the fifth preference quota.

The bottom row of Table 37 provides some interesting data on the whole IPDA sample. One-third of the immigrants had some college education, but nine out of 10 would have had difficulty explaining in English their reasons for immigrating. Although only 25 percent were self-employed in Korea, fully 61 percent expected to start a business in the United States. Overall, 85 percent of this cohort of new arrivals expected to get a job in the United States, even though only half of them had worked in the year before their departure from Korea.

INCOME, SOCIAL CLASS, AND RELIGION

In this section we examine the material rewards from work, in the form of reported income, and consider in that context the social class of the respondents, their remittances to and from the United States, and their expectations about jobs, income, and life satisfaction in the United States. The religious affiliation of respondents is also examined.

Income

Table 38 shows income levels for IPDA respondents who were employed during the 12 months prior to the interview. Among the male immigrants, more than 40 percent earned over 50 *man won* (equivalent to U.S. $625) per month, 14 percent received more than 100 man won (equivalent to $1,250) per month, and 3 percent reported income ~~of~~ more than 300 man won a month. Women earned only half as much as men, on the average. Only 15 percent of them received a monthly income of 50 man won or more, a small fraction (3.2 percent) earned more than 100 man won, and only one woman reported a monthly income of 300 man won or more. Occupational preference immigrants earned the highest average income of 101 man won ($1,260), followed by the fifth preference group with 62 man won ($780) (data not shown). The lowest income of 33 man won ($410) was found among the immediate relatives of U.S. citizens.

To put these figures in perspective, median incomes for the IPDA sample and median wages for the Korean working population are shown at the bottom of Table 38, in both won and dollar equivalents. The median income from all sources for immigrants was $485, compared with $345 in wage income for the population of Korea. Although the two data sources are not exactly comparable, the results seem to confirm that immigrants come from a relatively high socioeconomic stratum of Korean society.

SAS respondents who reported being employed in the United States at the time of status adjustment had a median income in excess of $1,200 per month (Table 39). Occupational preference immigrants had considerably higher incomes than other status adjusters, with a median figure of over $2,000 per month.

Social Class and Level of Living

We turn now to some subjective data that reflect, in part, the immigrants' perceptions of their relative standing in relation to some reference group or to some standard of comparison. For example, IPDA respondents were asked to rate their own social class. As shown in Table 40, a large majority (75 percent) perceived of themselves as belonging to the middle class. Fewer than one-fifth of them rated themselves as belonging to the lower class (19 percent), whereas even fewer viewed themselves as upper class (4.6 percent). A slightly higher percentage of female respondents perceived themselves as belonging to the middle or upper class than did male respondents (82 percent compared with 78 percent).

Data comparing the immigrants' situation in Korea with their expectations about life in the United States are presented in Table 41. The data are cross-tabulated by visa category, with the findings for the whole IPDA sample shown at the bottom of the table.

Korean immigrants worked an average of 57.2 hours per week in Korea,

Table 38. Monthly income of employed predeparture immigrants during 12 months before departure, by sex: IPDA, 1986

	Males		Females		Both sexes	
Income (man won[a])	Number	%	Number	%	Number	%
0 (unpaid family worker)	11	1.9	34	9.0	45	4.8
0 (no income)	8	1.4	3	0.8	11	1.2
Subtotal	19	3.4	37	9.8	56	5.9
< 10	12	2.1	19	5.0	31	3.3
10–19	37	6.5	83	21.9	120	12.7
20–29	85	15.0	84	22.2	169	17.9
30–39	89	15.7	54	14.2	143	15.1
40–49	77	13.6	41	10.8	118	12.5
Subtotal (1–49)	300	52.9	281	74.1	581	61.4
50–59	56	9.9	29	7.7	85	9.0
60–69	43	7.6	7	1.9	50	5.3
70–79	32	5.6	5	1.3	37	3.9
80–89	21	3.7	5	1.3	26	2.8
90–99	14	2.5	3	0.8	17	1.8
Subtotal (50–99)	166	29.3	49	12.9	215	22.7
100–149	36	6.4	10	2.6	46	4.9
150–199	20	3.5	1	0.3	21	2.2
200–249	9	1.6	0		9	1.0
250–299	1	0.2	0		1	0.1
300+	16	2.8	1	0.3	17	1.8
Subtotal (100+)	82	14.5	12	3.2	94	9.9
Total	567	100.1	379	100.0	946	99.9
IPDA median income[b] (man won)	46.7		28.2		38.8	
Korea median wages (man won)	35.7		17.5		27.6	
IPDA median income[b] converted to U.S. $	$583.75		$352.50		$485.00	
Korea median wages converted to U.S. $	$446.25		$218.75		$345.00	

Note: Twelve cases for whom data were missing are excluded from analysis.

Source of median income for the Korean working population: R.O.K., Ministry of Labor (1986).

a. Man = 10,000. Rate of exchange is approximately 800 won = U.S. $1, for example, 10 man won = U.S. $125.

b. For those respondents who received income.

Table 39. Current monthly income of employed status adjusters, by immigrant visa category: SAS, 1986

Monthly income in U.S. dollars	Immediate relatives		Family preference categories		Occupational preference categories		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
< $200	6	5.1	2	3.5	0	0.0	1	33.3	9	3.5
$200–$399	12	10.6	3	5.3	1	1.2	0	0.0	16	6.3
$400–$599	12	10.6	5	8.8	3	3.7	0	0.0	20	7.9
$600–$799	12	10.6	6	10.5	1	1.2	0	0.0	19	7.5
$800–$999	18	15.9	6	10.5	9	11.1	0	0.0	33	13.0
$1,000–$1,499	21	18.6	17	29.8	14	17.3	0	0.0	52	20.5
$1,500–$2,499	22	19.5	12	21.1	24	29.6	2	66.7	60	23.6
$2,500+	10	8.9	6	10.5	29	35.8	0	0.0	45	17.7
Total	113	99.8	57	100.0	81	99.9	3	100.0	254	100.0
Median	$964		$1,191		$2,023		$2,249		$1,287	

Note: Thirty-three cases for whom data were missing are excluded from analysis.

Table 40. Self-rated social class of predeparture immigrants, by sex: IPDA, 1986

Social class	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Upper	37	4.9	47	4.4	84	4.6
Upper middle	208	27.7	341	31.9	549	30.2
Middle middle	125	16.7	188	17.6	313	17.2
Lower middle	213	28.4	295	27.6	508	27.9
Lower	163	21.7	173	16.2	336	18.5
Don't know	2	0.3	18	1.7	20	1.1
No answer	2	0.3	8	0.7	10	0.5
Total[a]	750	100.0	1,070	100.1	1,820	100.0

a. Excludes 14 respondents whose residence was in the United States at the time of this interview.

but they expected to work shorter hours—44.9 hours per week—in the United States. Their median income in Korea was the equivalent of $102 per week, which they expected to triple, to $330 per week, for their first job in the United States. When asked to forecast their income after five years in the United States, the immigrants expected to nearly triple their initial U.S. income, to the expected amount of $930 per week on the average, or $48,000 per year.

In the IPDA survey a scaling technique was used to obtain ratings of various events on a scale of 0 to 10. A picture of a ladder was shown to each respondent to illustrate the steps from 0, the "worst possible condition," to 10, the "best possible condition." The ratings reported for "life satisfaction" in Table 41 refer to how satisfied the immigrant was with his or her current life in Korea and what level of satisfaction he or she expected after two years and after five years in the United States.

The average rating for Korea—6.4—is on the favorable half of the scale (above 5.0). Expectations for the first two years in the new country appear to have been modest, with only a slight increase in satisfaction. The expected level after five years, however, jumps to 8.0, indicating high expectations in an absolute sense and a marked increase over the ratings of life satisfactions in Korea. These findings suggest that Korean immigrants are prepared to accept delayed gratification in the immigration process.

The breakdown by visa category in Table 41 again reveals the unusual characteristics of fifth preference immigrants (brothers and sisters). They worked longer hours in Korea, expected to work longer hours in the United States, and expected to achieve a greater increase in income between the second and fifth years than did the other categories of family immigrants. The occupational immigrants, however, had the highest current income and

Table 41. Expected working hours, income, and life satisfaction, by immigrant visa category: predeparture immigrants (IPDA), 1986

Immigrant category[a]	Average working hours per week in Korea	Expected working hours per week in U.S.	Median income per week in Korea (U.S. $)[b]	Expected income per week[c] in U.S. (U.S. $)	Expected income per week after 5 years (U.S. $)	Life satisfaction		
						In Korea	After 2 years in U.S.	After 5 years in U.S.
Immediate relatives[d]	55.9	38.5	78	260	520	6.9	7.0	8.1
Family preferences								
Total	57.6	46.7	106	330	950	6.3	6.6	8.0
Primary	56.9	46.6	103	310	990	6.4	6.6	8.0
Beneficiaries	61.3	46.9	126	400	930	6.2	6.5	8.0
First, second, and fourth preferences								
Total	55.8	45.9	86	310	880	6.3	6.7	8.0
Primary	55.7	43.7	86	300	840	6.6	6.7	8.1
Beneficiaries	56.7	47.5	115	500	920	6.1	6.8	8.0
Fifth preference								
Total	60.7	48.1	144	370	1,080	6.2	6.4	7.9
Primary	59.9	50.2	153	350	1,200	6.1	6.4	8.0
Beneficiaries	61.7	45.5	126	380	940	6.3	6.5	7.9
Occupational preferences								
Total	56.2	43.9	168	550	1,440	6.2	6.8	8.0
Primary	53.0	43.7	289	690	1,800	6.4	6.9	8.1
Beneficiaries	61.1	44.1	128	410	1,130	6.2	6.7	7.9
All immigrant types	57.2	44.9	102	330	930	6.4	6.7	8.0

a. Excludes special immigrants (SE and SD visa holders).

b. Converted from won to dollars @ 800 won = U.S. $1.00; includes "no monetary income" (18 cases) and "unpaid family workers" (47 cases).

c. Includes "unpaid family workers" (37 cases).

d. Includes fiancé(e)s (K visa holders).

expected incomes. Despite these economic differences, ratings of life satisfaction at the three time points did not vary much among the different visa categories.

Religion

Despite the fact that the majority of residents of Korea say that they have no religious affiliation, religious participation of Korean immigrants has been reported to be greater than that of any other Asian immigrant group except Filipinos (Bok-Lim Kim 1978:178). A rapid increase in the number of Korean churches in the United States has also been noted. Data on Korean immigrants' church affiliation before departure will help to determine whether immigration is selective with respect to religious affiliation or whether Korean immigrants tend to newly affiliate with a church during their period of adaptation to a new culture.

The largest number of IPDA respondents (42 percent) were non-Catholic Christians (Table 42). One-third reported that they had no religion, about 13 percent were Buddhists, and 12 percent were Catholics. Female respondents were much more likely than male respondents to profess a religious affiliation (74 percent versus 58 percent). The proportion having a Christian church affiliation among our respondents was markedly higher than among the national population of Korea, where in 1985 only 16 percent and 4.9 percent were affiliated with non-Catholic Christian or Catholic churches, respectively (Table 43). The high level of religious affiliation is thus a major premigration selectivity factor, which may be associated with other factors, such as education and socioeconomic status. Whether religious affiliation also increases after arrival will be ascertained from future follow-up surveys.

Table 42. Religion of predeparture immigrants, by sex: IPDA, 1986

	Males		Females		Both sexes	
Religion	Number	%	Number	%	Number	%
Non-Catholic Christian	283	37.2	479	44.6	762	41.6
Catholic	79	10.4	147	13.7	226	12.3
Buddhist	75	9.9	159	14.8	234	12.8
Confucian	3	0.4	1	0.1	4	0.2
Other	2	0.3	9	0.8	11	0.6
None	318	41.8	278	25.9	596	32.5
Total	760[a]	100.0	1,073	99.9	1,833	100.0

a. One respondent did not answer this question.

Table 43. Religion of population of Korea, ages 18–68, by sex: 1985

Religion	Males (%)	Females (%)	Both sexes (%)
Non-Catholic Christian	14.6	17.8	16.2
Catholic	4.3	5.5	4.9
Buddhist	22.3	26.4	24.4
Confucian	1.6	1.4	1.5
Other	0.8	0.9	0.8
None	56.4	48.0	52.2
Total[a]	100.0	100.0	100.0

Source: R.O.K., NBOS (1987b).

Note: Excludes cases whose ages were coded "unknown."

RESOURCE FLOWS

The analyses presented thus far have shown that Korean immigration to the United States is a complex phenomenon, and that the characteristics of immigrants are heavily influenced by visa categories as defined in U.S. immigration law. Contrasts have been shown between those who entered under preference categories that are subject to numerical limitation and those who entered as immediate relatives of U.S. citizens, exempt from quotas. Within the numerically limited group, we found differences between occupational preference immigrants and family preference immigrants. And, cutting across both those categories, the distinction between primary immigrant and beneficiary has proved to be important.

These complexities are real and cannot be ignored, especially as they relate to an evaluation of immigration policies. It is nevertheless legitimate to look at the resulting immigrant cohort as a whole and ask questions about the impact of this flow of human resources from one country to another.

The Brain Drain

The human resource characteristics of immigrants are directly related to the issue of the "brain drain." Kuznets (1987), for example, has estimated that over 10 percent of the increment in Korea's supply of high-level manpower was drained off to the United States during the decade 1970–80 by the emigration of 27,000 professionals and 6,000 student status adjusters. Other authors have also indicated that Korea has lost substantial educational investment through emigration (Koo and Yu 1981; Illsoo Kim 1987). According to one estimate, about 15,000 students left Korea for the United States during the period 1953–80, but only about 10 percent of them returned (Illsoo Kim 1987:329). In addition, about 13,000 Korean physicians, nurses, and pharmacists immigrated to the United States during the period 1966–79 (Illsoo Kim 1987:332). Other authors give less importance to the losses and argue that the brain drain occurs mainly because of the inability of the sending country to absorb highly trained labor; they also point out that any loss from student emigration may be offset by the benefits derived from education and work in the United States of the students who return (Pernia 1976; Kuznets 1987) and by remittances that the emigrants send back to Korea.

Table 44 shows the occupational structure of Korean immigrants to the United States at three ten-year intervals: 1966, 1976, and 1986. The table is based on INS data about the reported occupation of new immigrants, combined with data on the current occupation of status adjusters. The quality of these data is seriously suspect, in part because a high percentage of new immigrants do not report any occupation (see the last line of Table 44). Nonetheless, it is noteworthy that, of those who reported an occupation, the proportion giving a professional or technical occupation was very high in 1966 (78 percent), but declined markedly to 40 percent in 1976 and to 23 percent in 1986. In the late 1960s, the working immigrants from Korea

Table 44. Reported occupation of Korean immigrants admitted in 1966, 1976, and 1986

	1966		1976		1986	
Occupation	Number	%	Number	%	Number	%
Professional/technical/related work	349	78.3	3,001	40.1	1,334	22.5
Administrative/executive/managerial work	17	3.8	932	12.5	1,270	21.4
Clerical work	39	8.7	768	10.3	819	13.8
Sales	5	1.1	256	3.4	365	6.2
Farming/fishing	0	0.0	200	2.7	286	4.8
Transport/communication	6	1.3	785	10.5	624	10.5
Crafts/production process work/other labor	9	2.0	1,053	14.1	556	9.4
Service/sport/recreation	21	4.7	489	6.5	669	11.3
Total	446	99.9	7,484	100.1	5,923	99.9
Number admitted	2,492		30,803		35,776	
Percentage of those admitted who reported an occupation[a]	17.9		24.3		16.6	

Sources: U.S., INS, *Annual Report*, (1966, 1976); U.S., INS, *Statistical Yearbook* (1986).

a. Many newly arrived immigrants report no occupation, perhaps because they are being admitted on grounds of family reunification. Occupations recorded for visa categories P3 and P6 are based on the positions that applicants have been offered in the United States. Occupations recorded for status adjusters are based on their reported occupations at the time they apply for adjustment from nonimmigrant to immigrant status.

tended to be professionals. In the 1980s, the occupational structure of the Korean immigrants has become diversified. A higher proportion is found in administrative and managerial jobs (21 percent), as well as in clerical (14 percent) and service occupations (11 percent), according to INS statistics. In absolute numbers, professional and technical workers declined from 3,001 in 1976 to 1,334 in 1986, a reduction of more than half.

In sum, although Korean immigration to the United States continues to be highly selective of the well-trained and the educated, the recent trend reveals a decline in the proportion of professionals and an increase in immigrants with administrative and managerial skills. The increase in business-oriented immigrants raises another economic issue related to human migration: remittances between places of origin and destination.

Remittances and Funds Brought to the United States

The flow of remittances through migration has received widespread attention during the past few decades. Particularly in the case of international migration, remittances can provide a significant source of foreign exchange (Stahl and Arnold 1986). The prevailing notion assumes that the flow of remittances is from the immigrant receiving country to the immigrant sending area (Kuznets 1987; Glaser 1975). In the IPDA survey, we asked about remittances received before departure, money already sent to the United States, money that respondents expected to send before departure, and money they expected to take with them. Of particular interest is money that Korean immigrants may bring to the United States to start a business or get settled while searching for a job. Because sending money abroad is a sensitive topic in Korea, these data are probably underestimates. Nonetheless, the empirical patterns are of interest.

Table 45 shows the distribution of money already sent to the United States at the time of interview. Only a small proportion (4.1 percent) of the respondents said they had already sent money; about half of them had sent more than $10,000 and half less than $10,000. Three respondents reported that they had already sent $100,000 or more to the United States. Among the 74 respondents who had sent money, the mean amount was $23,200.

An even smaller proportion (2.0 percent) expected to send money before leaving Korea, which is not surprising since most respondents would be leaving for the United States quite soon. Nearly half of those 34 respondents would send more than $20,000 and half less than $20,000 (Table 46). Only one respondent indicated he would send more than $100,000 to the United States before leaving Korea. The average among the 34 persons who expected to send money was $25,200.

Four out of five IPDA respondents (78 percent) said that they would take at least one hundred dollars with them when they travelled to the United States (Table 47). Thirty percent expected to bring between $10,000 and $50,000, 10 percent (178 immigrants) said that they would bring $50,000

Table 45. Money sent to the United States prior to the interview, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Amount (US dollars)	Number	%	Number	%	Number	%
None	727	95.5	1,026	95.6	1,753	95.6
< $10,000	8	1.1	26	2.4	34	1.9
$10,000–$99,999	23	3.0	14	1.3	37	2.0
$100,000+	2	0.3	1	0.1	3	0.2
Don't know	1	0.1	6	0.6	7	0.4
Total	761	100.0	1,073	100.0	1,834	100.1
Mean, excluding "none" responses[a]	$33,900		$14,600		$23,200	
Mean, including "none" responses[a]	$1,500		$600		$900	

a. Excludes "don't know" responses.

or more with them upon immigration, and two respondents indicated they would bring more than $200,000 to the United States. Seven percent said they did not know how much they would bring. The mean amount respondents were planning to bring was $14,500. If each adult immigrant arriving from Korea throughout the year were to bring in a similar amount of money, the total would amount to an influx of over $300 million annually.

Slightly more of the men (82 percent) than the women (76 percent) expected to bring more than one hundred dollars with them to the United States. Male respondents also expected to carry larger amounts of money with them. Half of all men expected to take more than $10,000, whereas fewer than one-third of the women would carry that much. This pattern is the same for funds the respondents had already sent as well as what they expected to send before leaving Korea.

The amount of money immigrants expected to bring to the United States varied widely among different admission groups (Table 48). The amount was considerably higher among those immigrants who were going to enter under a preference quota than among those who were entering as immediate relatives. Fifth preference category immigrants (siblings) expected to take the highest amount ($32,400 per person on the average); they were followed by the occupational preference group ($20,500), other family preference immigrants ($9,000), and immediate relatives of U.S. citizens ($5,000). The figures for money sent or expected to be sent are based on very small numbers of respondents and should therefore be interpreted with caution.

After the Korean War the country had insufficient capital and needed capital for industrialization; sending remittances abroad was once considered unpatriotic and was restricted by law. In 1986, however, emigrants were

Table 46. Amount of money expecting to send to the United States between interview time and departure, by sex: predeparture immigrants (IPDA), 1986

Amount (US dollars)	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
None	741	97.4	1,053	98.1	1,794	97.8
< $10,000	2	0.3	9	0.8	11	0.6
$10,000–$19,999	6	0.8	1	0.1	7	0.4
$20,000–$29,999	2	0.3	1	0.1	3	0.2
$30,000–$39,999	2	0.3	2	0.2	4	0.2
$40,000–$49,999	0	0.0	1	0.1	1	0.1
$50,000–$59,999	4	0.5	1	0.1	5	0.3
$60,000+	1	0.1	2	0.2	3	0.2
Don't know	3	0.4	3	0.3	6	0.3
Total	761	100.1	1,073	100.0	1,834	100.1
Mean, excluding "none" responses[a]	$28,200		$22,200		$25,200	
Mean, including "none" responses[a]	$600		$400		$500	

a. Excludes "don't know" responses.

Table 47. Amount of money expecting to take to the United States, by sex: predeparture immigrants (IPDA), 1986

Amount (US dollars)	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
None or < $100	95	12.5	177	16.5	272	14.8
$100–$10,000	244	32.1	470	43.8	714	38.9
$10,000–$49,999	272	35.7	272	25.3	544	29.7
$50,000+	108	14.2	70	6.5	178	9.7
Don't know	40	5.3	84	7.8	124	6.8
No answer	2	0.3	0	0.0	2	0.1
Total	761	100.1	1,073	99.9	1,834	100.0
Mean[a]	$18,600		$11,500		$14,500	

a. Excludes "don't know" and "no answer" responses.

allowed to take $100,000 per family, and the amount has gone up since then. Still, considering the general norms about remittances, it seems likely that the amount of remittances reported in the IPDA survey is a conservative estimate.

Table 48. Amount of remittances received and sent by predeparture immigrants, by immigrant visa category: IPDA, 1986

Immigrant category[a]	Average amount received for travel cost	Average amount received for living cost	Average amount sent to U.S.	Average amount expecting to send to U.S.	Average amount to be taken with respondent
Immediate relatives[b]	U.S. $1,300	U.S. $1,800	U.S. $8,800	U.S. $8,800	U.S. $5,000
Family preferences					
Total	1,200	2,300	29,300	29,700	17,800
Primary	1,100	2,000	17,200	34,000	19,200
Beneficiaries	1,300	2,600	41,100	26,400	16,700
First, second, fourth					
Total	1,200	2,300	34,400	19,600	9,000
Primary	1,000	2,100	19,400	19,000	9,500
Beneficiaries	1,300	2,600	48,700	19,800	8,800
Fifth preference					
Total	1,300	1,600	16,700	40,900	32,400
Primary	1,300	1,400	12,000	42,600	31,000
Beneficiaries	1,200	2,000	21,400	38,400	34,200
Occupational preferences					
Total	c	c	16,100	c	20,500
Primary	c	c	20,700	c	22,100
Beneficiaries	c	c	11,400	c	19,300
Mean	1,300	2,100	23,200	25,200	14,500
Median	800	1,000	10,000	12,800	5,000
% of sample involved[d]	27.8	22.0	4.0	1.9	93.1

a. SE and SD visa holders are excluded.

b. Including fiancé(e)s.

c. Fewer than 5 cases.

d. Excludes "none," "don't know," and "no answer" cases.

Since remittances often flow in both directions, money received from relatives in the United States is also shown in Table 48. About one-fourth of the respondents had received remittances to help with travel or living expenses, the average amounts for various admission categories ranging from about $1,000 to $2,600. The medians were $800 received for travel and $1,000 for living expenses. Given the much larger amounts brought to the United States, it seems clear that the net flow of remittances around the time of immigration is from Korea to the United States. The overall flows over a longer period of time will be an important topic in future longitudinal follow-up surveys (see also Kuznets 1987). The extent to which such funds are used to purchase small businesses is another important topic for future study (see Min 1986).

IMMIGRATION PROCESSES AT ORIGIN AND DESTINATION

In this section we examine the process of immigrating—situations, thoughts, perceptions, and behaviors—that play a role in the physical transition from one place to another. Among the topics to be discussed are the immigrants' stated reasons for moving, barriers encountered in moving, knowledge about the United States, and forces influencing the choice of destination, including having a place to stay and expecting help from relatives and friends in finding a job. While the microlevel perspective taken here focuses on individual motivations and decisions, the goal is to depict how these elements relate to the overall structure and process of this migration flow.

Family Networks and Motivations for Moving

In general, family networks play a critical role in the immigration process. For example, only one-fifth of IPDA respondents reported that the decision to move was based entirely on their own desire (Table 49). The response given by most immigrants (53 percent) was that the decision was made equally by themselves and others. It is reasonable to assume that the "others" were mainly family members. One-fifth stated that the decision was based mostly or entirely on the desire of others. This group would include the so-called "tied movers," who were simply accompanying other family members. Twice as many women as men fell into this category.

The significance of the family network is also demonstrated by reasons for moving. As a general motivational question, IPDA respondents were asked what made them think about immigrating, at the time that the idea first occurred to them. In response to this question, about three-fourths cited family affiliative reasons as their first motivation (Table 50). (In Table 50, "family primary affiliation" refers to moving to join relatives or being "brought" to the United States by relatives; "other affiliation reasons" include such influences as observing other family members immigrating or

Table 49. Influences on the decision to move, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Basis of decision	Number	%	Number	%	Number	%
Entirely the respondent's own desire	181	23.8	188	17.5	369	20.1
Mostly the respondent's own desire	58	7.6	73	6.8	131	7.1
Equally the desire of respondent and others	409	53.8	558	52.0	967	52.7
Mostly the desires of others	71	9.3	140	13.1	211	11.5
Entirely the desires of others	41	5.4	114	10.6	155	8.5
Other responses	1	0.1	0	0.0	1	0.1
Total	761	100.0	1,073	100.0	1,834	100.0

dating Americans.) Among those who gave a second reason for initially thinking about immigration, work or income factors were slightly more prominent for men.

Motivations of prospective immigrants just before migration were assessed by the following open-ended question: "People have many reasons for immigrating to the United States. In your case, what are some of the important reasons for leaving Korea and immigrating to the United States?" Table 51 summarizes the first and second mentioned reasons for immigrating.

More than half (56 percent) of the women and over one-fourth (29 percent) of the men stated that family primary affiliation (e.g., to join or live with family members, being brought by family members) was their first reason for immigrating to the United States. When other affiliative reasons are added (such as location of spouse's work, because of parents), a majority of respondents stated their first important reason for immigrating to the United States as family-related affiliation. A moderate proportion of the men (27 percent) identified economic motives as their first important reason for immigrating to the United States, whereas only 9.5 percent of the female respondents cited economic reasons.

Educational motives were cited as the first reason for immigration by 21 percent of men and 14 percent of women. Factors related to autonomy and stimulation (such as to live independently, to see other places) were indicated by only 7.1 percent of men and 3.7 percent of women.

Among those who mentioned more than one reason, the highest proportion of both male and female respondents indicated economic mo-

Table 50. Reasons for first thinking about immigrating, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Reason	Number	%	Number	%	Number	%
First reason mentioned						
Family primary affiliation/ to be with family	308	40.5	482	44.9	790	43.1
Other affiliation reasons	188	24.7	378	35.2	566	30.9
Education	84	11.0	69	6.4	153	8.3
Work/livelihood/income	88	11.5	61	5.7	149	8.1
Environmental factors	6	0.8	7	0.7	13	0.7
Autonomy/stimulation	47	6.2	51	4.8	98	5.3
Social	31	4.1	15	1.4	46	2.5
Other	9	1.2	10	0.9	19	1.0
Total	761	100.0	1,073	100.0	1,834	99.9
Second reason mentioned						
No second reason stated	525	69.0	811	45.6	1,336	72.9
Family primary affiliation/ to be with family	41	5.4	49	4.6	90	4.9
Other affiliation reasons	32	4.2	53	4.9	85	4.6
Education	40	5.3	44	4.1	84	4.6
Work/livelihood/income	68	8.9	47	4.4	115	6.3
Environmental factors	1	0.1	3	0.3	4	0.2
Autonomy/stimulation	28	3.7	41	3.8	69	3.8
Social	22	2.9	18	1.7	40	2.2
Other	4	0.5	7	0.7	11	0.6
Total	761	100.0	1,073	100.1	1,834	100.1

tives as their second reason (26 percent of the males and 15 percent of the female respondents, respectively). Educational motives were also relatively important as a second reason, mentioned by 16 percent of the male and 14 percent of the female respondents. Family affiliation reasons were cited by similar proportions of the respondents—14 percent of men and 15 percent of women, respectively. Another fairly substantial proportion of the respondents also indicated autonomy and stimulation motives (9.7 percent of men and 9.3 percent of women).

To provide an overall assessment of motives, the combined first mentioned and second mentioned reasons for immigration are shown in Table 52. The highest proportion of responses involved family affiliation (42 percent), economic motives were second (27 percent), followed by educational motives (19 percent), and autonomy (8.7 percent).

Table 51. Reasons for leaving Korea and immigrating to the United States, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Reason	Number	%	Number	%	Number	%
First reason mentioned						
Family primary affiliation/ to be with family	217	28.5	601	56.0	818	44.6
Other affiliation reasons	58	7.6	133	12.4	191	10.4
Education	163	21.4	152	14.2	315	17.2
Work/livelihood/income	205	26.9	102	9.5	307	16.7
Environmental factors			4	0.4	4	0.2
Autonomy/stimulation	54	7.1	40	3.7	94	5.1
Social	53	7.0	30	2.8	83	4.5
Other	11	1.5	11	1.0	22	1.2
Total	761	100.0	1,073	100.0	1,834	99.9
Second reason mentioned						
No second reason stated	167	21.9	432	40.3	599	32.7
Family primary affiliation/ to be with family	64	8.4	75	7.0	139	7.6
Other affiliation reasons	45	5.9	84	7.8	129	7.0
Education	121	15.9	149	13.9	270	14.7
Work/livelihood/income	200	26.3	161	15.0	361	19.7
Environmental factors	7	0.9	11	1.0	18	1.0
Autonomy/stimulation	74	9.7	100	9.3	174	9.5
Social	64	8.4	48	4.5	112	6.1
Other	19	2.5	13	1.2	32	1.7
Total	761	99.9	1,073	100.0	1,834	100.0

The combined motives show a distinct pattern by sex. Women were much more likely to give affiliative reasons for moving and much less likely to state economic motives. They were also slightly less motivated by educational considerations or autonomy and stimulation than were men.

Migration Barriers and Facilitators

Regardless of motives, the prospective immigrant must cope with a number of obstacles to moving, notably the procedures and paperwork requirements of the Korean and U.S. governments. In Korea, five overseas corporations are authorized to file for the passport and visa on behalf of applicants and to fill out all the forms required in the process. However, the corporations still must obtain from the applicants all the necessary certificates and documents for the passport and visa application.

Table 52. Combined first and second reasons for immigrating, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Reason	Number	%	Number	%	Number	%
Family primary affiliation/ to be with family	281	20.7	676	39.4	957	31.2
Other affiliation reasons	103	7.6	217	12.7	320	10.4
Education	284	21.0	301	17.6	585	19.1
Work/livelihood/income	505	37.3	314	18.3	819	26.7
Autonomy/stimulation	128	9.5	140	8.2	268	8.7
Other	54	4.0	66	3.9	120	3.9
Total[a]	1,355	100.1	1,714	100.1	3,069	100.0

a. Totals are greater than number of respondents because most respondents gave more than one reason.

To assess the severity of problems the respondents had encountered in this process, they were asked to rate whether the immigration procedures were very difficult, somewhat difficult, or not at all difficult. More than half (55 percent) said that they had encountered some difficulties with immigration procedures (Table 53). Those who found it difficult mentioned a wide variety of problems The most common difficulties cited were related to paperwork, i.e., too much red tape or diverse demands for documents (39 percent), producing birth or baptismal certificates (13 percent), and obtaining security clearances and a passport (4.5 percent). The other most common problems mentioned were the long wait associated with the petitioning process (13 percent) and difficulties in entering government buildings or the U.S. Embassy (7.1 percent). Quite a few suggested that the courtesy of staff in the U.S. Embassy and the Korean Ministry of Foreign Affairs needed to be improved. It is noteworthy, however, that corruption evidently taints the immigration process in only rare circumstances. Fewer than 1 percent of respondents mentioned that money was demanded from them to process their papers. (Of course, respondents may have been reluctant to mention this and other bureaucratic problems while they were still in the process of emigrating.)

Having contact with Americans may provide a kind of preacculturation for life in the United States. Almost half of the IPDA respondents had had some contact with Americans in Korea (Table 54). The proportion of those who had had some contact with Americans was similar for men (50 percent) and women (46 percent). The number of contacts and the nature of contacts differed by sex, however. Women reported a higher number of varied contacts, more than one-third mentioning two or more kinds of contacts with Americans, compared with 15 percent of men.

Table 53. Difficulties with immigration arrangements, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Difficulty	Number	%	Number	%	Number	%
Degree of difficulty						
Very difficult	163	21.4	220	20.5	383	20.9
Somewhat difficult	264	34.7	352	32.8	616	33.6
Not at all difficult	322	42.3	471	43.9	793	43.2
Don't know	12	1.6	30	2.8	42	2.3
Total	761	100.0	1,073	100.0	1,834	100.0
First difficulty mentioned						
Too much red tape/ diverse treatment of documents	181	42.4	210	36.7	391	39.1
Producing birth/ baptismal certificate	71	16.6	62	10.8	133	13.3
Long wait for petition paper	54	12.7	74	12.9	128	12.8
Difficulty of entrance to government building or embassy	21	4.9	50	8.7	71	7.1
Visa interview at the U.S. embassy	17	4.0	43	7.5	60	6.0
Securing security clearance (NBI, NISA, courts, etc.)	14	3.3	27	4.7	41	4.1
Long travel distance required to prepare documents	7	1.6	29	5.1	36	3.6
Lack of information (in general)	9	2.1	22	3.9	31	3.1
Lack of courtesy/helpfulness on part of embassy and government officials	13	3.0	10	1.8	23	2.3
Refusal (of visa, passport, etc.)	7	1.6	13	2.3	20	2.0
Effect on everyday life of long wait for visa	11	2.6	6	1.1	17	1.7
Mistakes in dealing with respondent's case at embassy	5	1.2	5	0.9	10	1.0
Don't know	3	0.7	6	1.1	9	0.9
Demands for money by overseas corporation	3	0.7	4	0.7	7	0.7

Table 53. *(continued)*

	Males		Females		Both sexes	
Difficulty	Number	%	Number	%	Number	%
Finding a reliable travel agency	4	0.9	1	0.2	5	0.5
Other	3	0.7	2	0.4	5	0.5
Securing passport (Ministry of Foreign Affairs)	2	0.5	2	0.4	4	0.4
Economic difficulty	1	0.2	2	0.4	3	0.3
Inconsistent requirement for information from Korea ministry & U.S. embassy	1	0.2	2	0.4	3	0.3
No answer	0	0.0	2	0.4	2	0.2
Total	427	99.9	572	100.4	999	99.9

Forty percent of the women who had contacts with Americans indicated their spouse or fiancé as the first-mentioned kind of contact. Another 17 percent of the female respondents had contacts with Americans through an American's marriage to a member of the family, and an additional 17 percent knew Americans as teachers. For men the American contacts were more evenly distributed. Sixteen percent of them had had opportunities to contact Americans because of their job (such as buyers), 18 percent knew American teachers, 13 percent had had contact through military service, 12 percent had met Americans as employers or coworkers, and 11 percent knew them through a church. Family-related contacts with Americans were much less common for men than for women. Similarly, the job- or workplace-related contacts with Americans are less common for women (in part because a much smaller proportion of women were employed in Korea).

Despite their many contacts with Americans in Korea, few IPDA respondents (only 10 percent) had actually been to the United States (Table 55). Four percent had stayed in the United States for one year or more, and another 6.0 percent had stayed in the United States for a period of less than one year. Among those who had been to the United States, one-fourth had attended a U.S. educational institution and another 30 percent had worked in the United States; these proportions are equivalent to 2.5 percent and 3.0 percent of all respondents, respectively (data not shown).

To gauge how long respondents had been planning to move to the United States, they were asked the following question: "When did you first think about immigrating to the United States?" Nearly two-thirds of the

Table 54. Contact with Americans in Korea, by sex: predeparture immigrants (IPDA), 1986

Contact	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Whether respondent had contact						
Yes	378	49.7	488	45.5	866	47.2
No	383	50.3	585	54.5	968	52.8
Total	761	100.0	1,073	100.0	1,834	100.0
Number of kinds of contact						
1	322	85.2	308	63.1	630	72.7
2	53	14.0	165	33.8	218	25.2
3	3	0.8	15	3.1	18	2.1
Total	378	100.0	488	100.0	866	100.0
First kind of contact mentioned						
American spouse/fiancé(e)	2	0.5	195	40.0	197	22.8
Teacher/professor	67	17.7	82	16.8	149	17.2
Married member of the family	36	9.5	83	17.0	119	13.7
Friend/childhood friend	48	12.7	37	7.6	85	9.8
Church, missionary	43	11.4	36	7.4	79	9.1
Opportunities for contact through job (e.g., as buyer)	61	16.1	17	3.5	78	9.0
Army service as fellow soldier	49	13.0	0	0.0	49	5.7
Coworker	39	10.3	9	1.8	48	5.5
Residence or sales in army compound neighborhood	18	4.8	16	3.3	34	3.9
American employer	8	2.1	6	1.2	14	1.6
Service, hostess, waitress in Army compound	5	1.3	7	1.4	12	1.4
As soldier in Army (including during W.W. II)	1	0.3	0	0.0	1	0.1
Other	1	0.3	0	0.0	1	0.1
Total	378	100.0	488	100.0	866	99.9
Second kind of contact mentioned						
Friend/childhood friend	13	23.2	86	47.8	99	41.9
Service, hostess, waitress in army compound	1	1.8	21	11.7	22	9.3
Opportunities for contact through job (e.g., as buyer)	12	21.4	7	3.9	19	8.1
Residence or sales in army compound neighborhood	1	1.8	18	10.0	19	8.1

Table 54. *(continued)*

Contact	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
American spouse/fiancé(e)	1	1.8	16	8.9	17	7.2
Teacher/professor	6	10.7	11	6.1	17	7.2
Married member of the family	9	16.1	6	3.3	15	6.4
American employer	5	8.9	4	2.2	9	3.8
Church, missionary	5	8.9	4	2.2	9	3.8
Coworker	0	0.0	7	3.9	7	3.0
Army service as fellow soldier	3	5.4	0	0.0	3	1.3
Total	56	100.0	180	100.0	236	100.1

Table 55. Previous experience in the United States by sex: predeparture immigrants (IPDA), 1986

Experience	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Stayed in the U.S. one year or more	38	5.0	36	3.4	74	4.0
Stayed in the U.S. less than one year	51	6.7	59	5.5	110	6.0
Had never been to the U.S.	672	88.3	978	91.1	1,650	90.0
Total	761	100.0	1,073	100.0	1,834	100.0

respondents had first thought about immigrating to the United States fairly recently (within the last five years) and another one-fourth (27 percent) had been considering the move for between six and 10 years (Table 56). Fewer than 8 percent had first thought about immigrating more than 10 years earlier. Respondents were also asked how clear an idea they had about the United States as a place to live (Table 57). Only 7.2 percent said "very clear," and about half (51 percent) said "fairly clear." However, 42 percent of those who were about to move to the United States as immigrants admitted they did not have a clear idea about the United States at all.

Destination Choices

Despite having a fuzzy image of the United States as a place to live, nearly all of the respondents had definite places of intended residence in the United

Table 56. When predeparture immigrants first thought about immigration to the United States, by sex: IPDA, 1986

	Males		Females		Both sexes	
Number of years ago	Number	%	Number	%	Number	%
< 5	432	57.1	755	70.6	1,187	65.0
6–10	245	32.4	254	23.8	499	27.3
11–15	65	8.6	48	4.5	113	6.2
16–20	11	1.5	9	0.8	20	1.1
21+	4	0.5	3	0.3	7	0.4
Total[a]	757	100.1	1,069	100.0	1,826	100.0

[a] Excludes "other" and "don't know" cases (four males and four females).

Table 57. Clarity of perceptions of the United States as a place to live, by sex: predeparture immigrants (IPDA), 1986

	Male		Female		Both sexes	
Degree of clarity	Number	%	Number	%	Number	%
Very clear	66	8.7	66	6.2	132	7.2
Fairly clear	415	54.5	516	48.1	931	50.8
Not clear	280	36.8	491	45.8	771	42.0
Total	761	100.0	1,073	100.1	1,834	100.0

States (Table 58). Among the few who did not know were several spouses of American servicemen whose next post was not yet assigned. Upon their arrival, 30 percent of the respondents intended to live in California, the location of the largest Korean American community in the United States. The second largest stream of immigrants was headed for New York State, where 9.3 percent intended to reside initially. Smaller numbers were headed for such states as Illinois (6.2 percent), Maryland (6.2 percent), Texas (5.0 percent), Pennsylvania (4.1 percent), New Jersey (3.9 percent), Washington (3.9 percent), Virginia (3.6 percent), and Hawaii (2.9 percent). It is well known that Koreans and other Asian immigrants tend to concentrate in the western part of the United States. More generally, they locate in the states where their compatriots reside. Koreans are not as concentrated in the West as some other Asian immigrant groups, however; for example, the 1980 census showed 43 percent of Korean Americans in the West, compared with 69 percent of Filipino Americans (Xenos et al. 1987).

Table 58. Intended destination in the United States: predeparture immigrants (IPDA), 1986

U.S. state	Number	Percent
California	544	29.8
New York	170	9.3
Illinois	113	6.2
Maryland	112	6.1
Texas	91	5.0
Pennsylvania	74	4.1
New Jersey	74	4.1
Washington	70	3.8
Virginia	66	3.6
Hawaii	53	2.9
Other states[a]	460	25.2
Total[b]	1,827	100.1

a. Include Guam, Virgin Islands, District of Columbia, and military compounds outside the United States.

b. Excludes seven "don't know" responses.

The important role played by family networks in destination choices is demonstrated in Table 59, where the presence of relatives is shown as the reason for choosing the intended destination for the vast majority (87 percent) of Korean immigrants. Only a small proportion mentioned job-related reasons, and in some cases this referred to the job held by a family member.

Family relationships are also crucial in determining the initial living arrangements of new immigrants (Table 60). More than four-fifths (84 percent) of the respondents had already arranged for a place to stay upon their arrival in the United States, and 87 percent of those intended to stay with family members.

EXPECTED U.S. OCCUPATIONS AND FURTHER TRAINING

The vast majority of Korean immigrants expected to work once they arrived in the United States—substantially more than the proportion who had actually worked in Korea. As shown earlier in Table 29, 75 percent of male and 36 percent of female IPDA respondents had been employed during the 12 months prior to their departure. By contrast, more than 90 percent of male respondents and almost 80 percent of female respondents stated they would be economically active in the United States (Table 61). The nonworkers among men were predominantly prospective students (67 percent), whereas most of the women who did not expect to be gainfully employed

Table 59. Reason for choosing intended U.S. destination, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
First reason mentioned	Number	%	Number	%	Number	%
Family						
Spouse/fiancé(e) lives there	82	10.8	256	24.0	338	18.5
Parents live there	140	18.4	74	6.9	214	11.7
Children live there	59	7.8	165	15.5	224	12.3
Brother/sister lives there	134	17.6	108	10.1	242	13.3
Family members (specified) live there	145	19.1	97	9.1	242	13.3
Other relatives (specified) live there	129	17.0	189	17.7	318	17.4
Other relatives (unspecified) live there	1	0.1	1	0.1	2	0.1
Family members own a house there	3	0.4	3	0.3	6	0.3
Subtotal	693	91.1	893	83.8	1,586	86.9
Economic						
Jobs are available there	[illegible]	0.5	3	0.3	7	0.4
Respondent or respondent's family's job is located there	41	5.4	142	13.3	183	10.0
Subtotal	45	5.9	145	13.6	190	10.4
Social and environmental						
It is a nice place to live	4	0.5	6	0.6	10	0.6
Climate is nice there	3	0.4	1	0.1	4	0.2
Many friends live there	5	0.7	5	0.5	10	0.6
School is located there	7	0.9	10	0.9	17	0.9
Many Koreans live there	3	0.4	5	0.5	8	0.4
Subtotal	22	2.9	27	2.5	49	2.7
Other	1	0.1	1	0.1	2	0.1
Total	761	100.0	1,066[a]	100.0	1,827	100.1

[a] Excludes seven respondents who had no specific intended destination.

were retired (45 percent) or expected to do housekeeping (40 percent).

Among those who expected to work, a substantial proportion (37 percent) had already made arrangements for their job before departure from Korea (Table 62). A gender difference is evident here, with nearly half (48 percent) of the men and just over one-fourth (27 percent) of the women having made prior arrangements for their jobs in the United States.

Table 60. Arrangements for a place to stay in the United States and whether planning to live with family members, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Arrangement	Number	%	Number	%	Number	%
Whether respondent has arranged place to stay						
Yes	628	82.5	912	85.6	1,540	84.3
No	133	17.5	154	14.4	287	15.7
Total	761	100.0	1,066[a]	100.0	1,827	100.0
Whether arrangement is to stay with family members						
Yes, planning to stay with family members	555	88.4	789	86.5	1,344	87.3
No, not planning to stay with family members	73	11.6	123	13.5	196	12.7
Total	628	100.0	912	100.0	1,540	100.0

a. Excludes seven "don't know" cases.

Table 61. Expectation of work in the United States, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Expectation	Number	%	Number	%	Number	%
Whether expecting to work						
Yes	699	91.9	853	79.5	1,552	84.6
No	61	8.0	218	20.3	279	15.2
Don't know	1	0.1	2	0.2	3	0.2
Total	761	100.0	1,073	100.0	1,834	100.0
Type of nonwork activity						
Study	41	67.2	29	13.3	70	25.1
Housekeeping	0	0.0	86	39.5	86	30.8
Retirement	16	26.2	99	45.4	115	41.2
Other	4	6.6	4	1.8	8	2.9
Total	61	100.0	218	100.0	279	100.0

Type of Work and the Job-Finding Process

Table 62 also shows the distribution of prearranged jobs. The most common expected jobs for all immigrants were in crafts and production (27 percent), sales (26 percent), and services, sport, and recreation (19 percent);

Table 62. Arrangements for a job in the United States and type of job arranged for those expecting to work, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Arrangements	Number	%	Number	%	Number	%
Whether respondent has made arrangements for a job in the U.S.						
Yes	338	48.4	233	27.3	571	36.8
No	361	51.6	620	72.7	981	63.2
Total	699	100.0	853	100.0	1,552	100.0
Type of prearranged job						
Professional/technical/ related work	19	5.6	11	4.7	30	5.3
Administrative/executive/ managerial work	30	8.9	5	2.2	35	6.1
Clerical work	22	6.5	51	21.9	73	12.8
Sales	90	26.6	58	24.9	148	25.9
Farming/fishing/hunting/ logging/mining	2	0.6	1	0.4	3	0.5
Transport/communication	2	0.6	0	0.0	2	0.4
Crafts/production process work/other labor n.e.c.	107	31.7	46	19.7	153	26.8
Service/sport/recreation	54	16.0	56	24.0	110	19.3
Don't know	12	3.6	5	2.2	17	3.0
Total	338	100.1	233	100.0	571	100.1

n.e.c. = not elsewhere classified.

but there were some differences in ranking by gender. For example, 8.9 percent of men and 2.2 percent of women expected to be managers or proprietors upon immigration to the United States. The distribution of expected jobs for those who did not have prearrangements reveals a similar pattern (Table 63).

In looking for a job in the United States, family connections were again of paramount importance. The majority of those without prearranged jobs expected to rely on someone—usually relatives—for help: 90 percent of men and 85 percent of women (Table 64). The most common sources for such help were: brothers or sisters (23 percent), brothers-in-law or sisters-in-law (20 percent), and spouses (15 percent). A small proportion (7.9 percent) expected to rely on friends or acquaintances. Similar patterns hold for male and female respondents, except that women tended to rely more on their spouses or fiancés.

Table 63. Kinds of job expected by those without a prearranged job, by sex: predeparture immigrants (IPDA), 1986

Kind of job	Males Number	Males %	Females Number	Females %	Both sexes Number	Both sexes %
Professional/technical/related work	20	5.6	34	5.5	54	5.5
Administrative/executive/ managerial work	22	6.1	22	3.6	44	4.5
Clerical work	15	4.2	80	12.9	95	9.7
Business proprietorship	1	0.3	0	0.0	1	0.1
Sales	52	14.4	84	13.6	136	13.9
Farming/fishing/hunting/ logging/mining	5	1.4	2	0.3	7	0.7
Transport/communication	6	1.7	3	0.5	9	0.9
Crafts/production process work/other labor n.e.c.	92	25.6	114	18.4	206	21.0
Service/sport/recreation	109	30.3	186	30.1	295	30.1
Don't know	38	10.6	94	15.2	132	13.5
Total	360	100.2	619	100.1	979	99.9

Note: Two cases for whom data were missing are excluded from analysis.
n.e.c. = not elsewhere classified.

The respondents who said they would not rely on anyone's help mentioned mainly newspaper advertisements or job opening notices at the workplace, but some still mentioned friends and relatives as sources of assistance (Table 65). The degree to which respondents had prearranged jobs or expected help in finding a job was related to the type of job they expected to find. Sales work was most likely to be prearranged, whereas service work was most often expected to be found after the respondent arrived in the United States.

It is striking that most immigrants expected to start work quickly (Table 66). Among those who planned to work, two out of five expected to start immediately upon arrival and fully three out of four expected to be working within the first month after arrival.

In most cases, however, IPDA respondents expected their first job to be temporary (Table 67). Only 16 percent said that they expected to keep their first job permanently. A somewhat larger proportion (23 percent) expected their first job to last less than one year. The largest group of all—nearly one-third—said that the duration of their first job would depend upon circumstances. As shown in the bottom panel of Table 67, those immigrants foresaw varied circumstances that might influence their career progression in the United States.

Table 64. Whether those without a prearranged job were expecting help in finding a job and from whom, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Expectation	Number	%	Number	%	Number	%
Whether expecting help in finding a job						
Yes	323	89.5	527	85.0	850	86.6
No	38	10.5	92	14.8	130	13.3
No answer	0	0.0	1	0.2	1	0.1
Total	361	100.0	620	100.0	981	100.0
Person from whom expecting help						
Spouse	9	2.8	118	22.4	127	14.9
Father	14	4.3	8	1.5	22	2.6
Mother	7	2.2	2	0.4	9	1.1
Fiancé/fiancée	0	0.0	21	4.0	21	2.5
Unmarried daughter	0	0.0	1	0.2	1	0.1
Married son	4	1.2	4	0.8	8	0.9
Married daughter	17	5.3	41	7.8	58	6.8
Son-in-law/daughter-in-law	8	2.5	2	0.4	10	1.2
Brother/sister	97	30.0	98	18.6	195	22.9
Mother-in-law/father-in-law	13	4.0	28	5.3	41	4.8
Brother-in-law/sister-in-law	74	22.9	92	17.5	166	19.5
Aunt	6	1.9	12	2.3	18	2.1
Uncle	18	5.6	19	3.6	37	4.4
Cousin	4	1.2	3	0.6	7	0.8
Father and mother	12	3.7	8	1.5	20	2.4
Married sibling and sibling-in-law	9	2.8	13	2.5	22	2.6
Sister-in-law and brother-in-law	4	1.2	2	0.4	6	0.7
Nephew	1	0.3	2	0.4	3	0.4
Other relative	2	0.6	5	0.9	7	0.8
Agency	1	0.3	4	0.8	5	0.6
Friends or acquaintances	23	7.1	44	8.3	67	7.9
Total	323	99.9	527	100.2	850	100.0

Self-Employment

The propensity of Korean immigrants to engage in entrepreneurial activities in the United States has been documented as an outstanding aspect of their adaptation (Min 1986; Hurh and Kim 1980, 1988; Bonacich, Light,

Table 65. Method of finding a job without help and type of job expected, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Method/type of job	Number	%	Number	%	Number	%
Method of finding a job						
Job opening notice at the door or door-to-door approach (in person)	18	47.4	33	35.9	51	39.2
Through newspaper advertisement	8	21.1	23	25.0	31	23.8
Through friends and relatives	3	7.9	16	17.4	19	14.6
By applying to various agencies	4	10.5	12	13.0	16	12.3
Other	4	10.5	4	4.3	8	6.2
Don't know	0	0.0	3	3.3	3	2.3
By approaching a government official/politician	0	0.0	1	1.1	1	0.8
No answer	1	2.6	0	0.0	1	0.8
Total	38	100.0	92	100.0	130	100.0
Type of job expected						
Service/sport/recreation	11	28.9	30	32.6	41	31.5
Clerical work	2	5.3	19	20.7	21	16.2
Professional/technical/related work	11	28.9	9	9.8	20	15.4
Crafts/production process work/other labor n.e.c.	7	18.4	10	10.9	17	13.1
Don't know	2	5.3	12	13.0	14	10.8
Sales	2	5.3	7	7.6	9	6.9
Administrative/executive/managerial work	2	5.3	5	5.4	7	5.4
No answer	1	2.6	0	0.0	1	0.8
Total	38	100.0	92	100.0	130	100.1

n.e.c. = not elsewhere classified.

and Wong 1977; Neidert and Farley 1985; Min and Jaret 1985; McClelland 1987; Arnold, Minocha, and Fawcett 1987; Light 1985). Most of these studies have been based on surveys of self-employed immigrants working in small businesses. They tend to focus on the role of the immigrant entrepreneur in the structural context of U.S. society, but some studies also examine premigration conditions that are conducive to entrepreneurship.

Among the reasons cited in the literature for the high representation of selected minorities in small business are: (1) cultural norms or values

Table 66. How quickly expecting to start work in the United States, by sex: predeparture immigrants, (IPDA), 1986

	Males		Females		Both sexes	
Length of time	Number	%	Number	%	Number	%
Immediately	375	53.6	272	31.9	647	41.7
1-4 months	228	32.6	285	33.4	513	33.1
5-8 months	44	6.3	100	11.7	144	9.3
9-12 months	19	2.7	65	7.6	84	5.4
18+ months	10	1.4	56	6.6	66	4.3
Other	2	0.3	5	0.6	7	0.5
Don't know	20	2.9	68	8.0	88	5.7
No answer	1	0.1	2	0.2	3	0.2
Total	699	99.9	853	100.0	1,552	100.2

Note: No replies in the 13-17 month range.

of the group, such as their hard work, frugal behavior, and high-achievement values; (2) the supportive role of family and social networks of the ethnic group; (3) the disadvantaged position of minorities in the labor market at the destination; and (4) the economic and political relations between the place of origin and destination. These factors are given different weights in various theoretical perspectives, most of which also give substantial importance to historical factors leading up to the current situation (Light and Bonacich 1988).

Earlier studies have indicated that about one-third of Korean immigrant families are engaged in small businesses (Bonacich, Light, and Wong 1976, 1977; Illsoo Kim 1981; David S. Kim and Wong 1977; Light 1980). In a 1986 survey based on the "Kim" surname sampling technique, Min (n.d.) found 45 percent of Korean immigrants in Los Angeles to be self-employed. The IPDA data indicate that an even higher proportion of the 1986 cohort of new immigrants expected to start a business.

As summarized in the bottom panel of Table 68, 61 percent of IPDA respondents intended to pursue an entrepreneurial career, including 71 percent of the men and 54 percent of the women. Those currently married and immigrating with a spouse were more likely to be planning to start a business than were other respondents (top panel in Table 68). Among immigrating couples, almost three-fourths (74 percent) of the men and more than two-thirds (68 percent) of the women intended to have their own businesses in the United States.

Many of the small businesses run by Koreans in the United States are labor-intensive, requiring long hours of work by many hands. It is not surprising, then, that single persons and those immigrating without their spouses were substantially less likely than others to plan to go into busi-

Table 67. Expected duration of first job in the United States, by sex: predeparture immigrants (IPDA), 1986

Expectation	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Expected duration						
12 months or less	175	25.0	177	20.8	352	22.7
13–24 months	84	12.0	66	7.7	150	9.7
25–36 months	45	6.4	39	4.6	84	5.4
37–48 months	15	2.1	8	0.9	23	1.5
49–60 months	32	4.6	19	2.2	51	3.3
61–240 months	16	2.3	11	1.3	27	1.7
Permanently	102	14.6	148	17.4	250	16.1
It depends on circumstances (see below)	191	27.3	305	35.8	496	32.0
Other	0	0.0	1	0.1	1	0.1
Don't know	39	5.6	77	9.0	116	7.5
No answer	0	0.0	2	0.2	2	0.1
Total	699	99.9	853	100.0	1,552	100.1
What expected duration depends on						
Planning to remain in job for a certain time (until respondent earns enough for education, decides on a school to go to, opens own business)	63	33.0	106	34.8	169	34.1
Availability of other job	47	24.6	73	23.9	120	24.2
Planning to remain in job until respondent adjusts to U.S. culture (language, way of life, customs, etc.)	40	20.9	39	12.8	79	15.9
If the job fits respondent's character or skill	19	9.9	48	15.7	67	13.5
If first job pays well	12	6.3	11	3.6	23	4.6
If respondent remains strong/healthy	7	3.7	16	5.2	23	4.6
Spouse's decision	1	0.5	9	3.0	10	2.0
If respondent keeps first job	1	0.5	2	0.7	3	0.6
No answer	1	0.5	1	0.3	2	0.4
Total	191	99.9	305	100.0	496	99.9

Table 68. Expectations about starting a business in the United States, by sex, marital status, and travel plans: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Sample and expectation	Number	%	Number	%	Number	%
Subsample: respondent currently married and spouse will accompany						
Expecting to go into business	225	73.8	286	67.5	511[a]	70.1
Not expecting to go into business	76	24.9	136	32.1	212	29.1
Spouse or respondent running a business in U.S.	3	1.0	2	0.5	5	0.7
Don't know	1	0.3	0	0.0	1	0.1
Total	305	100.0	424	100.1	729	100.0
Subsample: respondent not married, or married but spouse will not accompany						
Expecting to go into business	314	68.9	290	44.7	604	54.7
Not expecting to go into business	135	29.6	345	53.2	480	43.4
Spouse or respondent running a business in U.S.	5	1.1	12	1.8	17	1.5
Don't know	2	0.4	2	0.3	4	0.4
Total	456	100.0	649	100.0	1,105	100.0
Total sample						
Expecting to go into business	539	70.8	576	53.7	1,115	60.8
Not expecting to go into business	211	27.7	481	44.8	692	37.7
Spouse or respondent running a business in U.S.	8	1.1	14	1.3	22	1.2
Don't know	3	0.4	2	0.2	5	0.3
Total	761	100.0	1,073	100.0	1,834	100.0

a. Of the 511 couples traveling together who expected to go into business, 57 percent planned a joint business, 33 percent a business run by the respondent or spouse alone, and 10 percent two separate businesses.

ness (55 percent, compared with 70 percent), as shown in the middle panel of Table 68. Single women were the least likely to be planning to go into business, but even in that group 45 percent expressed entrepreneurial intentions.

Prospective entrepreneurs were asked what kind of business they expected to start in the United States (Table 69). The type of business envisioned was mainly in sales (54 percent) and services (33 percent). Among the businesses in sales, food-related stores (grocery, liquor, produce, etc.) were most popular (17 percent). Many businesses would also sell Korean goods (11 percent) or engage in import–export between the United States and Korea or elsewhere (10 percent). Another 13 percent would sell goods of various kinds, not necessarily imported. Among the service-type businesses, food-related services (restaurants) were most favored (13 percent), followed by cleaning or janitorial services (3.8 percent), beauty or barber shops (3.0 percent), construction services (2.7 percent), and car repair shops (2.5 percent). The proportion of respondents interested in opening a manufacturing business turned out to be quite small (4.2 percent), as was the proportion of self-employed professionals (3.6 percent). The gender differences in type of business planned were generally minor, except that men appeared to dominate the import–export field.

Business plans differed for various admission groups. As already shown in Table 37, fifth preference immigrants (siblings) had the highest propensity to start a business (85 percent). Next was the occupational admission group (68 percent), and the nonsibling family preference group (66 percent), with the immediate relative group having the lowest propensity (30 percent).

Most of those with business plans (69 percent) expected to open their businesses more than three years after arrival in the United States (Table 70). Only one-fourth (27 percent) intended to start their own businesses within three years, and fewer than one-tenth (7.9 percent) expected to go into business within one year after immigration. Men and women showed similar distributions on the expected timing of going into business.

One of the main reasons cited by respondents for not starting a business sooner was to have sufficient time to accumulate the necessary capital. Prospective immigrants were asked how much money they would need to start their businesses and whether they already had enough money for that purpose. More than one-third (34 percent) said they did not know how much capital would be needed (Table 71). A slightly larger proportion (37 percent) said it would take at least $50,000 to start their businesses. Smaller amounts (less than $50,000) accounted for 28 percent of the responses.

Only one-fifth (20 percent) of the respondents with business plans already had enough capital to start their businesses at the time of their departure from Korea (Table 72). For those who did not have the initial capital required to start a business, about one-third (32 percent) planned to ac-

Table 69. Kind of business intending to start: predeparture immigrants, (IPDA), 1986

Kind of business	Males		Females		Both Sexes	
	Number	%	Number	%	Number	%
Professional/technical						
Law	1	0.2	0	0.0	1	0.1
Engineering (including computer software)	7	1.3	3	0.5	10	0.9
Architectural/planning	1	0.2	3	0.5	4	0.4
Accounting	1	0.2	0	0.0	1	0.1
Medical (including Korean herbal clinic)	6	1.1	2	0.3	8	0.7
Dental	1	0.2	1	0.2	2	0.2
Educational (nursery, piano, drawing, etc.)	2	0.4	12	2.1	14	1.3
Subtotal	19	3.5	21	3.6	40	3.6
Sales/merchandising						
Import–export, general	65	12.1	26	4.5	91	8.2
Import–export, Korean products	11	2.0	10	1.7	21	1.9
Sales, Korean goods/ products (handicrafts, rattan furniture, dresses, accessories, shoes, jewelry)	46	8.5	74	12.8	120	10.8
Food/liquor store	89	16.5	105	18.2	194	17.4
Sales, appliances	14	2.6	7	1.2	21	1.9
Sales, general	66	12.2	75	13.0	141	12.6
Insurance	1	0.2	0	0.0	1	0.1
Real estate	5	0.9	2	0.3	7	0.6
Subtotal	297	55.1	299	51.9	596	53.5
Service						
Hotel, motel, inn	6	1.1	6	1.0	12	1.1
Car repair shop	24	4.5	4	0.7	28	2.5
Appliance repair shop	9	1.7	3	0.5	12	1.1
Beauty/hair-dressing shop/ barber shop	2	0.4	31	5.4	33	3.0
Dressmaking/tailoring shop	5	0.9	18	3.1	23	2.1
Restaurant/food service	49	9.1	91	15.8	140	12.6
Construction/building/ plumbing company	15	2.8	15	2.6	30	2.7
Transportation (taxi, bus service, etc.)	18	3.3	8	1.4	26	2.3

Table 69. *(continued)*

	Males		Females		Both Sexes	
Kind of business	Number	%	Number	%	Number	%
Cleaning/custodial service	14	2.6	28	4.9	42	3.8
Service n.e.c.	16	3.0	10	1.7	26	2.3
Subtotal	158	29.3	214	37.2	372	33.4
Manufacturing						
Textiles, leathers, stuffed animals	17	3.2	11	1.9	28	2.5
Furniture, appliance	4	0.7	1	0.2	5	0.4
Unspecified production	2	0.4	1	0.2	3	0.3
Production n.e.c.	7	1.3	4	0.7	11	1.0
Subtotal	30	5.6	17	3.0	47	4.2
Other						
Farming, orchard, horticulture, gardening	12	2.2	5	0.9	17	1.5
Health/recreation (e.g., Taikwon-Do, golf course)	1	0.2	1	0.2	2	0.2
Subtotal	13	2.4	6	1.0	19	1.7
Don't know	22	4.1	19	3.3	41	3.7
Total	539	100.0	576	100.0	1,115	100.1

n.e.c. = not elsewhere classified.

cumulate the capital through savings and a larger proportion (43 percent) planned to combine savings and bank loans.

It is noteworthy that despite the respondents' absolute dependency on family ties for immigrating and their reliance on family networks for housing and job arrangements, their expectations for financial help from relatives and friends is negligible. Only 1.5 percent expected to fund their businesses entirely with money from relatives or friends, although a somewhat larger proportion (15 percent) expected to combine such help with other sources of funds.

Additional Training Expected

In addition to the respondents' strong propensity to go into business for themselves, more than half (52 percent) planned to go to school or obtain some kind of training in the United States (Table 73). The distribution of first-mentioned types of education or training reveals two large groups. About one-third (34 percent) of the respondents planned to go to English-language school, and another third (33 percent) expected to obtain higher

Table 70. How soon expecting to start a business, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Length of time	Number	%	Number	%	Number	%
Within one year	45	8.3	43	7.5	88	7.9
1-3 years	96	17.8	113	19.6	209	18.7
More than 3 years	386	71.6	386	67.0	772	69.2
Other	7	1.3	13	2.3	20	1.8
Don't know	5	0.9	20	3.5	25	2.2
No answer	0	0.0	1	0.2	1	0.1
Total	539	99.9	576	100.1	1,115	99.9

Table 71. Estimates of amount of money needed to start a business in the United States, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Estimate	Number	%	Number	%	Number	%
< $10,000	15	2.8	29	5.0	44	3.9
$10,000-$19,999	32	5.9	49	8.5	81	7.3
$20,000-$29,999	45	8.4	38	6.6	83	7.4
$30,000-$39,999	41	7.6	30	5.2	71	6.4
$40,000-$49,999	19	3.5	15	2.6	34	3.0
$50,000-$99,999	108	20.0	75	13.0	183	16.4
$100,000-$199,999	105	19.5	49	8.5	154	13.8
$200,000+	45	8.4	25	4.3	70	6.3
Other	4	0.7	4	0.7	8	0.7
Don't know	125	23.2	259	45.0	384	34.4
No answer	0	0.0	3	0.5	3	0.3
Total	539	100.0	576	99.9	1,115	99.9
Mean[a]	$95,970		$66,520		$83,290	
Median[a]	$50,790		$40,500		$50,438	

a. Means and medians calculated from ungrouped data and exclude "other," "don't know," and "no answer" responses.

education (college or graduate study). The rest anticipated vocational training in a variety of fields.

Gender differences emerged with respect to type of education or training. More immigrant men than women intended to obtain higher education (47 versus 23 percent). In contrast, more immigrant women than men planned to attend language school (43 versus 21 percent). Among the vari-

Table 72. Percentage having adequate capital and ways of getting initial capital for a business, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Needed capital	Number	%	Number	%	Number	%
Whether respondent has enough capital						
Yes	98	18.2	126	21.9	224	20.1
No	440	81.6	446	77.4	886	79.5
Don't know	0	0.0	1	0.2	1	0.1
No answer	1	0.2	3	0.5	4	0.4
Total	539	100.0	576	100.0	1,115	100.1
Expected ways to get needed capital						
1. Borrowing from bank	14	3.2	14	3.1	28	3.2
2. Borrowing from relatives or friends	6	1.4	7	1.6	13	1.5
3. Saving	128	29.1	152	34.1	280	31.6
4. Selling or mortgaging property	2	0.5	0	0.0	2	0.2
1 + 2	2	0.5	3	0.7	5	0.6
1 + 3	195	44.3	188	42.2	383	43.2
1 + 4	2	0.5	2	0.4	4	0.5
2 + 3	19	4.3	29	6.5	48	5.4
3 + 4	1	0.2	7	1.6	8	0.9
1 + 2 + 3	40	9.1	26	5.8	66	7.4
1 + 2 + 4	2	0.5	0	0.0	2	0.2
1 + 3 + 4	17	3.9	11	2.5	28	3.2
2 + 3 + 4	2	0.5	0	0.0	2	0.2
1 + 2 + 3 + 4	9	2.0	2	0.4	11	1.2
Other	0	0.0	1	0.2	1	0.1
Don't know	1	0.2	2	0.4	3	0.3
No answer	0	0.0	2	0.4	2	0.2
Total	440	100.2	446	99.9	886	99.9

ous types of vocational training, male respondents mentioned mechanical training the most (10 percent), whereas female respondents indicated dressmaking or tailoring (6.3 percent) and "beauty culture" (5.8 percent) as the main types of vocational training planned in the United States.

PLACE PERCEPTIONS AND PROBLEMS EXPECTED

In preceding sections we have described immigrants' predeparture experiences and their plans for such activities as work and education, and

Table 73. Plans for additional education in the United States, by sex: predeparture immigrants (IPDA), 1986

Plan	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Planning for education or training						
Yes	389	51.1	570	53.1	959	52.3
No	282	37.1	351	32.7	633	34.5
It depends on circumstances	90	11.8	152	14.2	242	13.2
Total	761	100.0	1,073	100.0	1,834	100.0
Number of types of training mentioned						
1	284	73.0	393	68.9	677	70.6
2	92	23.7	148	26.0	240	25.0
3	6	1.5	13	2.3	19	2.0
4	3	0.8	4	0.7	7	0.7
Don't know	4	1.0	12	2.1	16	1.7
Total	389	100.0	570	100.0	959	100.0
Kind of education or training first mentioned						
Education						
Elementary school	0	0.0	2	0.4	2	0.2
Middle school	0	0.0	14	2.5	14	1.5
High school	3	0.8	15	2.6	18	1.9
College, university	140	36.0	110	19.3	250	26.1
Graduate education	44	11.3	18	3.2	62	6.5
Other vocational, trade courses	17	4.4	23	4.0	40	4.2
Training						
Language school	81	20.8	242	42.5	323	33.7
Mechanical (automotive, diesel mechanic, aircraft maintenance, technical courses)	39	10.0	1	0.2	40	4.2
Dressmaking, tailoring, designing	2	0.5	36	6.3	38	4.0
Beauty culture (hair science, manicure, cosmetics, etc.)	1	0.3	33	5.8	34	3.5
Medical (midwifery, first aid, etc.)	10	2.6	16	2.8	26	2.7
Data processing (keypunching, computer, etc.)	6	1.5	9	1.6	15	1.6

Table 73. *(continued)*

Plan	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Construction-related training	13	3.3	1	0.2	14	1.5
Electrical (refrigeration, radio, air-conditioning, etc.)	12	3.1	0	0.0	12	1.3
Clerical (typing, secretarial steno, etc.)	1	0.3	9	1.6	10	1.0
Driving	3	0.8	3	0.5	6	0.6
Other institute (music, dance, fine arts)	1	0.3	5	0.9	6	0.6
Cooking-related training (nutritionist, bartending, etc.)	1	0.3	4	0.7	5	0.5
Crafts (ceramics, rattan furniture, etc.), handicrafts (knitting, embroidery, bamboo art craft, stained glass, etc.)	3	0.8	2	0.4	5	0.5
Accounting, financial (CPA review, cashiering, bookkeeping, etc.)	1	0.3	3	0.5	4	0.4
Sales	1	0.3	3	0.5	4	0.4
Agricultural (swine breeding, agrarian, etc.)	2	0.5	1	0.2	3	0.3
Hotel maintenance training (e.g., fixing bedding)	1	0.3	2	0.4	3	0.3
Drawing, drafting	0	0.0	1	0.2	1	0.1
Flower arrangement	0	0.0	1	0.2	1	0.1
Religious training (catechism)	1	0.3	0	0.0	1	0.1
Don't know	6	1.5	16	2.8	22	2.3
Total	389	100.3	570	100.3	959	100.1

we have examined their self-reported motivations for immigrating. Here we take a somewhat broader conceptual approach, looking at how Korean immigrants perceive various aspects of life in Korea and the United States. We also examine the particular types of problems the IPDA respondents expected to encounter in the United States, with special attention to discrimination. These data show that potential migrants perceive both positive and negative aspects of moving. Bearing in mind such mixed feelings about the home country and the new country, we also look at responses to questions about whether the prospective immigrants planned to become U.S. citizens or whether they planned eventually to return to Korea to live.

Place Perceptions

Migration decisions are partly a function of place perceptions, particularly the differences in perceived opportunities at the place of origin and destination. The influence of family and friends interacts with place perceptions in the decision process (Fawcett and Arnold 1987). To assess place utility, IPDA respondents were asked to evaluate conditions in both Korea and the United States along 14 dimensions, using the ladder scaling technique described earlier (0 representing the worst condition, 10 the best condition, and 5 the mid-point). As shown in Table 74, the average rating for the United States was higher than for Korea, 6.8 versus 5.6. Of 14 factors used for the comparison, respondents rated Korea higher on only four: moral climate, freedom from crime, nonalienation of the elderly, and opportunity to raise one's social status. They rated the United States higher, however, as a land of opportunity for improving wage levels, being rewarded for work, and achieving economic success and a high standard of living. They also viewed the United States as a country with better political conditions and educational opportunities, and relatively little corruption. Given the discontent prevalent among the general public at the last stage of the Chun military government in 1986, the immigrants' low rating for the political conditions in Korea sheds light on the premigration structural context in which the decision to uproot themselves was made.

Problems Expected

What kind of practical difficulties do Korean immigrants expect to face after arrival in the United States? In response to a structured question listing five types of problems, a large majority (90 percent) said they expected to encounter language problems (Table 75). Much smaller percentages expected problems with schooling (36 percent), jobs (26 percent), housing (17 percent), and the cost of living (16 percent.) There were virtually no differences between men and women in these ratings of problems.

About half (49 percent) of those who expected language problems were hopeful that the problem could be overcome within two years after immigration (Table 76), but others did not expect to solve this problem so quickly. One-fifth (21 percent) expected the language barrier to last for two to three years, and a small fraction (5.6 percent) believed that it would be a permanent problem for them. Women expected their language problem to last somewhat longer than men, on the average. They were also more likely than men to rate their language problem as "very serious."

Among the few who anticipated a problem in housing, finding a house to rent or to buy at a reasonable price was the most worrisome issue (Table 77). In regard to the cost of living (Table 78), the major problems expected were the high price of goods and commodities in the United States and inadequate funds for living expenses—which are really just two ways of describing cost-of-living problems.

Table 74. Ratings of Korea and the United States on 14 place characteristics, by sex: predeparture immigrants (IPDA), 1986

Place characteristic	Male		Female		Both sexes		Difference
	U.S.	Korea	U.S.	Korea	U.S.	Korea	(U.S. - Korea)
Wage level	7.8	4.4	7.6	4.2	7.7	4.3	+3.4
Kindness of people	6.3	6.6	6.7	5.9	6.6	6.2	+0.4
Variety of enjoyable things	7.2	5.9	7.5	5.5	7.4	5.7	+1.7
Opportunity for economic success	7.3	5.2	7.5	5.0	7.4	5.1	+2.3
Opportunity for rise of social status	5.5	6.2	5.8	5.8	5.7	6.0	-0.3
Moral climate	5.1	7.8	5.4	7.4	5.3	7.6	-2.3
Educational opportunities	7.9	6.1	7.8	6.0	7.8	6.1	+1.7
Freedom from crime	5.1	7.6	5.1	6.9	5.1	7.2	-2.1
Standard of living	7.8	5.1	7.7	5.3	7.7	5.2	+2.5
Political conditions	8.0	4.4	7.5	4.4	7.7	4.4	+3.3
Rewarding work and ability	8.2	4.9	8.2	4.7	8.2	4.8	+3.4
Job stability	7.1	5.3	7.1	5.4	7.1	5.4	+1.7
Corruption of the power group[a]	6.8	3.9	6.4	3.8	6.6	3.8	+2.8
Alienation of old age[a]	4.5	6.8	4.7	6.1	4.6	6.4	-1.8
Mean	6.8	5.7	6.8	5.5	6.8	5.6	+1.2

Note: Ratings are based on a ladder scale, with 0 representing the worst condition and 10 the best condition.

a. Scores for the last two items are difficult to interpret because they are the only negative characteristics on the list. It is likely that the lower score for Korea on corruption means that it is a "worse" place for corruption, and the lower score for the United States on alienation of the elderly means that the United States is a "worse" place for the elderly.

Table 75. Number and percentage expecting selected problems after arriving in the United States, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Problem	Number expecting	%	Number expecting	%	Number expecting	%
Housing	132	17.3	174	16.2	306	16.7
Cost of living	119	15.6	165	15.4	284	15.5
Job	182	23.9	289	26.9	471	25.7
Schooling	275	36.1	378	35.2	653	35.6
Language	684	89.9	958	89.3	1,642	89.5
Number	761		1,073		1,834	

Table 76. Extent of language problems expected in the United States, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Extent of problem	Number	%	Number	%	Number	%
Seriousness of language problem						
No problem	77	10.1	115	10.7	192	10.5
Very serious	191	25.1	366	34.1	557	30.4
Serious	114	15.0	164	15.3	278	15.2
Somewhat serious	250	32.9	258	24.0	508	27.7
A little serious[a]	125	16.4	155	14.4	280	15.3
Don't know	1	0.1	6	0.6	7	0.4
No answer	3	0.4	9	0.8	12	0.7
Total	761	100.0	1,073	99.9	1,834	100.1
Expected duration of language problem						
No problem	77	10.1	115	10.7	192	10.5
< 1 year	139	18.3	121	11.3	260	14.2
1-2 years	247	32.4	303	28.2	550	30.0
2-3 years	156	20.5	186	17.3	342	18.6
3-4 years	61	8.0	130	12.1	191	10.4
4+ years	49	6.4	76	7.1	125	6.8
Permanently	18	2.4	74	6.9	92	5.0
Other	0	0.0	1	0.1	1	0.1
Don't know	7	0.9	59	5.5	66	3.6
No answer	7	0.9	8	0.8	15	0.9
Total	761	100.0	1,073	100.0	1,834	100.1

a. "A little serious" is equivalent to "not very serious" in this scale.

Table 77. Types of housing problems expected in the United States, by sex: predeparture immigrants (IPDA), 1986

Type of problem	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
No problems	629	82.7	899	83.8	1,528	83.3
Finding a house to rent or lease	52	6.8	79	7.4	131	7.1
Finding an inexpensive house	24	3.2	16	1.5	40	2.2
Finding a house in a good neighborhood	9	1.2	11	1.0	20	1.1
Owning a house in U.S.	20	2.6	16	1.5	36	2.0
Frequent change in residence	5	0.7	11	1.0	16	0.9
Inconvenience of the residence	9	1.2	11	1.0	20	1.1
Other	11	1.4	26	2.4	37	2.0
Don't know	1	0.1	2	0.2	3	0.2
No answer	1	0.1	2	0.2	3	0.2
Total	761	100.0	1,073	100.0	1,834	100.1

Table 78. Cost-of-living problems expected in the United States, by sex: predeparture immigrants (IPDA), 1986

Type of Problem	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
No problem	642	84.4	908	84.6	1,550	84.5
High price of goods and commodities	60	7.9	100	9.3	160	8.7
Inadequacy of funds before finding a job	47	6.2	43	4.0	90	4.9
High education expenses	8	1.1	13	1.2	21	1.1
High cost of transportation	0	0.0	1	0.1	1	0.1
High tax	1	0.1	0	0.0	1	0.1
High cost of labor and services	1	0.1	0	0.0	1	0.1
Other	1	0.1	2	0.2	3	0.2
Don't know	1	0.1	2	0.2	3	0.2
No answer	0	0.0	4	0.4	4	0.2
Total	761	100.0	1,073	100.0	1,834	100.1

Table 79. Job-related problems expected in the United States, by sex: predeparture immigrants (IPDA), 1986

Type of problem and person involved	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Type of problem						
No problem	579	76.1	784	73.1	1,363	74.3
Difficult to get a job	89	11.7	139	13.0	228	12.4
Language problems at work	64	8.4	95	8.9	159	8.7
Coworker relations or associations at work	13	1.7	21	2.0	34	1.9
Employment in general	4	0.5	10	0.9	14	0.8
Hard work	3	0.4	11	1.0	14	0.8
Unequal opportunities for employment	5	0.7	7	0.7	12	0.7
Other	3	0.4	1	0.1	4	0.2
Don't know	1	0.1	3	0.3	4	0.2
No answer	0	0.0	2	0.2	2	0.1
Total	761	100.0	1,073	100.2	1,834	100.1
Person involved						
Respondent only	107	58.8	217	75.1	324	68.8
Family member(s)	4	2.2	8	2.8	12	2.5
Both	64	35.2	59	20.4	123	26.1
No answer	7	3.8	5	1.7	12	2.5
Total	182	100.0	289	100.0	471	99.9

For the immigrants who anticipated job obstacles in the United States, the ones most commonly mentioned were difficulties in getting a job and language problems at work (Table 79). With respect to problems expected in education, language again figured prominently (Table 80). Adjustment to a new school system was also, naturally, an expected problem for many respondents. As shown in the bottom panel of Table 80, most of the educational concerns expressed pertained to the respondents themselves, not to their children.

In response to a question about whether Koreans are discriminated against or treated unfairly in the United States, two-thirds (66 percent) answered in the affirmative (Table 81). When asked about types of discrimination, most respondents mentioned being "looked down upon" in general owing to their language, appearance, etc. Apart from that general belief, respondents mentioned a wide range of specific economic and social aspects of discrimination. About 24 percent of the responses pertained to discrimination in getting a job or on the job.

Table 80. Educational problems expected in the United States, by sex: predeparture immigrants (IPDA), 1986

Type of problem and person involved	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Type of problem						
No problem	486	63.9	695	64.8	1,181	64.4
Language problems at school	127	16.7	180	16.8	307	16.7
Adjustment to educational system and atmosphere	35	4.6	89	8.3	124	6.8
Education problem (general)	39	5.1	26	2.4	65	3.5
Conflict between society and family (in educating the children)	31	4.1	30	2.8	61	3.3
Money for education	29	3.8	29	2.7	58	3.2
Hard work and study	14	1.8	15	1.4	29	1.6
Racial discrimination at school	0	0.0	3	0.3	3	0.2
No answer	0	0.0	3	0.3	3	0.2
Other	0	0.0	1	0.1	1	0.1
Don't know	0	0.0	2	0.2	2	0.1
Total	761	100.0	1,073	100.1	1,834	100.1
Person involved						
Respondent only	129	46.9	200	52.9	329	50.4
Family member(s)	71	25.8	99	26.2	170	26.0
Both	66	24.0	72	19.0	138	21.1
Don't know	1	0.4	0	0.0	1	0.2
No answer	8	2.9	7	1.9	15	2.3
Total	275	100.0	378	100.0	653	100.0

Those who answered that Koreans are discriminated against in the United States were asked if they expected discrimination to be a serious problem for them personally. Interestingly, fewer than one-third (30 percent) of those who thought there was discrimination against Koreans in the United States expected that they themselves would experience serious discrimination (Table 82).

Future Plans

Given these complex place perceptions, what do immigrants say, on the eve of their departure for the United States, about their plans for U.S. citizenship and their plans to return home permanently someday? A majority of respondents (67 percent) indicated that they planned to become citizens of the United States (Table 83). More women (72 percent) than men (61 per-

Table 81. Beliefs about discrimination and unfair treatment of Koreans in the United States, by sex: predeparture immigrants (IPDA), 1986

Belief	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Whether discrimination exists against Koreans						
Yes	538	70.7	680	63.4	1,218	66.4
No	148	19.4	234	21.8	382	20.8
Don't know	74	9.7	158	14.7	232	12.6
No answer	1	0.1	1	0.1	2	0.1
Total	761	99.9	1,073	100.0	1,834	99.9
Type of discrimination first mentioned						
Social, general						
Looked down upon in general (due to appearance, language, ethnocentrism)	223	41.4	305	44.9	528	43.3
Unequal social opportunities	63	11.7	47	6.9	110	9.0
Less protected by public organization (e.g., in law)	26	4.8	24	3.5	50	4.1
Not accepted in higher society	14	2.6	19	2.8	33	2.7
Least preferred as home tenants	16	3.0	12	1.8	28	2.3
Other social discrimination	13	2.4	10	1.5	23	1.9
Unequal educational opportunities (selection of school, scholarships)	5	0.9	7	1.0	12	1.0
Subtotal	360	66.9	424	62.4	784	64.4
Economic, employment: getting a job						
Discriminated against in getting a job (in general)	18	3.3	33	4.9	51	4.2
Not equally or easily hired (in general)	14	2.6	21	3.1	35	2.9
Least preferred in some jobs in general	11	2.0	18	2.6	29	2.4
Not hired for professional jobs	14	2.6	11	1.6	25	2.1
Least preferred for political, government positions	3	0.6	3	0.4	6	0.5
Subtotal	60	11.2	86	12.6	146	12.0

Table 81. *(continued)*

Belief	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Employment: on the job						
Not promoted in jobs	39	7.2	32	4.7	71	5.8
Discriminated against in wages	20	3.7	29	4.3	49	4.0
Discriminated against in the job (in general)	6	1.1	7	1.0	13	1.1
Less accepted as coworkers (in social gatherings)	3	0.6	3	0.4	6	0.5
Less communicated with among coworkers (information, news in working)	3	0.6	3	0.4	6	0.5
Subtotal	71	13.2	74	10.9	145	11.9
Don't know	47	8.7	93	13.7	140	11.5
No answer	0	0.0	3	0.4	3	0.2
Total	538	100.0	680	100.0	1,218	100.0

Table 82. Expectations about being personally discriminated against in the United States, by sex: predeparture immigrants (IPDA), 1986

Whether expecting serious discrimination problems personally	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Yes	165	30.7	204	30.0	369	30.3
No	334	62.1	424	62.4	758	62.2
Don't know	37	6.9	46	6.8	83	6.8
No answer	2	0.4	6	0.9	8	0.7
Total	538	100.1	680	100.1	1,218	100.0

cent) were planning to become citizens. Their overall expectations seemed consistent with the behavior of previous Korean immigrants. For example, by 1988 more than half (55 percent) of all Korean immigrants who were admitted to the United States between 1970 and 1979 had already become naturalized citizens (U.S., INS, 1989:xxxvii).

When IPDA respondents were asked about their reasons for planning to become citizens, the most common response from both men (47 percent) and women (32 percent) was "to enjoy the same rights and privileges as Americans." They also mentioned wanting to become citizens in order to stay in the United States permanently and that it would be convenient

Table 83. Plans to become a U.S. citizen and reasons, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Plan/reason	Number	%	Number	%	Number	%
Whether planning to become a U.S. citizen someday						
Yes	464	61.0	768	71.6	1,232	67.2
No	172	22.6	153	14.3	325	17.7
It depends on circumstances	124	16.3	152	14.2	276	15.0
No answer	1	0.1	0	0.0	1	0.1
Total	761	100.0	1,073	100.1	1,834	100.0
Reason first mentioned for becoming a U.S. citizen						
To enjoy the same rights and privileges as Americans	218	47.0	249	32.4	467	37.9
To stay in the U.S. permanently	83	17.9	155	20.2	238	19.3
Convenient for living in the U.S. (needed for adaptation)	78	16.8	129	16.8	207	16.8
To petition for family members	21	4.5	75	9.8	96	7.8
For children's sake	24	5.2	52	6.8	76	6.2
Spouse is American citizen	3	0.6	67	8.7	70	5.7
To travel conveniently	28	6.0	28	3.6	56	4.5
To get a better job	6	1.3	6	0.8	12	1.0
Other	1	0.2	3	0.4	4	0.3
Korea is not a good place to live	1	0.2	1	0.1	2	0.2
U.S. is a better place to live	1	0.2	1	0.1	2	0.2
Don't know	0	0.0	1	0.1	1	0.1
No answer	0	0.0	1	0.1	1	0.1
Total	464	99.9	768	99.9	1,232	100.1

for living in the United States. A substantial number of women (8.7 percent) said their primary motivation was the fact that their spouse was an American citizen.

Although most respondents expected to stay in the United States permanently, almost one-third (31 percent) expected to return permanently to Korea someday (Table 84). As was the case when asked about their plans for citizenship, more men (37 percent) than women (27 percent) indicated

Table 84. Expectations about returning to Korea permanently and reasons, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Expectation/reason	Number	%	Number	%	Number	%
Whether planning to return to Korea permanently						
Yes	279	36.7	289	26.9	568	31.0
No	273	35.9	503	46.9	776	42.3
It depends on circumstances	208	27.3	281	26.2	489	26.7
No answer	1	0.1	0	0.0	1	0.1
Total	761	100.0	1,073	100.0	1,834	100.1
Reason first mentioned for returning permanently						
To rest/die here	85	30.5	101	34.9	186	32.7
Just to return to my own country (naturally)	90	32.3	81	28.0	171	30.1
To work in Korea after achievement in the U.S. (to run a business in Korea after achieving economic prosperity)	53	19.0	31	10.7	84	14.8
No place like home (general)	30	10.8	42	14.5	72	12.7
Relatives (family) are here	16	5.7	26	9.0	42	7.4
Spouse/parents are coming back here	2	0.7	4	1.4	6	1.1
Other	3	1.1	1	0.4	4	0.7
People are more friendly here	0	0.0	3	1.0	3	0.5
Total	279	100.1	289	99.9	568	100.0

they planned to return home permanently. The majority among those who planned to return (76 percent) would return home to die or return simply because Korea was their native country and there is "no place like home." In contrast, some of the respondents who planned to return (15 percent) appeared to be temporary immigrants in the sense that after achieving certain goals in the United States they planned to return to work in Korea. Expectations of permanently returning to Korea are subject to change, of course, and the likelihood of return migration probably decreases the longer the immigrant stays in the United States. Emigration is particularly likely among immigrants who have insufficient or inaccurate knowledge about life in the United States (Arnold et al. 1987). Although no solid evidence is available on the extent of return migration among Korean immigrants, indirect estimates suggest that the level of emigration may be considered lower than the level recent Korean immigrants anticipate (Jasso and Rosenzweig 1982).

CONCLUSION

In this report we have provided a wealth of detail about the 1986 cohort of Korean immigrants to the United States. A few factors common to most members of the cohort stand out, such as their urban backgrounds and their high socioeconomic status in comparison with the general Korean population. Beyond a few such generalizations, however, the distinctive feature of this group is its heterogeneity.

The diversity of characteristics of this cohort, we have argued, is in large measure a consequence of the specific provisions of U.S. immigration policy. In 1986, nearly 90 percent of Koreans immigrated under the family reunification provisions of the immigration law. These provisions specify the type of family relationship, they impose certain criteria based upon age and marital status, and they allow for spouses and children to enter under "derivative" status. The heterogeneous nature of this group of immigrants is thus dictated in part by their differing visa statuses.

The direct impact of immigrant visa requirements tells only part of the story, however. Because of the dependence of new immigrants on family connections, their characteristics are at least loosely related to those of previous cohorts; further, their settlement pattern in the United States is linked to the situations of the family members who preceded them. Such connections are shown clearly in the IPDA data on reasons for choice of destination and the utility of family members as sources of assistance in finding a job.

One implication of this analysis may be that labor market conditions in the United States do not have a major influence on the job-related characteristics of the immigrant flow. That conclusion is undoubtedly justified to some degree, but it would be an overstatement to say that labor market conditions are irrelevant to immigration based on family connections. The literature shows that immigrant households have an unusually high percentage of members who are economically active; in a related vein, it is safe to assume that Korean Americans are unlikely to file an immigration petition for an adult family member who would be economically dependent on them, except perhaps in the case of aged parents. On the contrary, the petitioning process is likely to favor persons who are perceived as having a good chance of economic success in the United States. In a sense, the family members filing petitions serve as gatekeepers between the potential labor pool in Korea and the labor market, or at least the immigrant labor market, in the United States.

As shown in the IPDA data, a high percentage (61 percent) of incoming Korean immigrants expected eventually to go into business for themselves, thus avoiding the constraints of the wage-paying labor market. This process too involves precedents set by kinsmen and compatriots, who serve as role models for more recent immigrants and often employ them initially so that they can learn about running a business in the United States. A special follow-up survey of IPDA respondents is in progress to investigate the process by which new immigrants become self-employed in business.

Although a majority of Korean immigrants said that they did not have a very clear idea about the United States as a place to live, they did exhibit knowledge in certain key areas. For example, many expected to face discriminatory treatment after arrival; in addition, the great majority anticipated difficulties related to their inadequate command of the English language. The data also show that these new immigrants expected little improvement in their economic status in the short term, but they expected to do well in the longer term. They seemed to be prepared for hard work and struggle, while being motivated by the belief that their efforts would eventually be rewarded. In comparisons of place characteristics, the three items for which the United States was most strongly favored over Korea were its high wage level, the availability of adequate rewards for hard work and ability, and favorable political conditions.

Clearly, these immigrants were taking advantage of an opportunity offered through family connections to better their socioeconomic situation. Some were also motivated by "push" factors such as political repression and corruption, but the opportunity for upward mobility seems to have been more pervasive. The role that women play in this process deserves mention, since their transition is much sharper. Only 36 percent of female immigrants had been employed in the year before their departure from Korea, but fully 80 percent expected to work in the United States. In many cases, this work would involve strenuous jobs in the service sector or in a family-run business, requiring a major adjustment from their homemaker role in Korea.

What can be said of the impact of this cohort of Korean immigrants on the U.S. economy and society? The definitive answer to that question must await the findings from longitudinal studies. However, predeparture data suggest several observations. The dispersion of this cohort across the United States indicates that its effects are probably going to be small in any particular community, with the possible exception of Korean enclave communities. Similarly, the variety of professional and occupational backgrounds and postarrival employment plans argues against a sector-specific labor market impact. And, judging from other recent cohorts as well as the socioeconomic standing of members of this cohort, it is unlikely that this group will impose a burden on public services and facilities. Rather, it may be more fruitful in follow-up studies to look for positive effects of their achievement motivations and entrepreneurial spirit.

As a final observation, we would call attention to the fact that Korean immigrants admitted to the United States on the sole basis of family relationships are nonetheless a well-educated and highly-skilled group; that is, they represent a high level of human capital. This fact is worth emphasizing because in debates over immigration policy in the United States there seems to be an implicit assumption that "family reunion" immigrants lack economic value, in comparison with immigrants admitted under occupational preferences. That could be true for some countries, but it is certainly not the case for Korea. In the IPDA sample, professional and technical workers comprised 15 percent of immediate relatives, 15 percent of family preference immigrants, and 19 percent of occupational preference immigrants. And, because the absolute numbers were much higher for family reunification admissions, fully 90 percent of the IPDA respondents who had professional and technical occupational experience were admitted to the United States on the basis of family relationships. Most of the future entrepreneurs were also admitted as a result of family connections. Although the occupational preference categories are intentionally selective on education and occupation, our analyses have shown that family preference categories are also selective on these dimensions, while encompassing a range of skills and backgrounds that may be thought of as a healthy diversity.

A prominent U.S. senator who wants to cut back on family reunification immigration has argued his position on the grounds that "nepotism is not good public policy." That is a catchy phrase, but keeping families together is not nepotism. In the case of recent Korean immigrants, family reunification does seem to be good public policy, since it is bringing to the United States a talented and energetic group of newcomers.

Whether the current emigration flows are good for Korea is another question. The Government of Korea has in recent years adopted policies that encourage establishment of Korean businesses abroad and that eliminate earlier barriers to emigration, apparently in support of the more general goal of internationalizing the Korean economy and society. One potentially beneficial aspect is the boost to trade flows resulting from immigrant entrepreneurs in the import–export business, but no data are available on the magnitude of that effect. The major cost of emigration is of course the loss of human resources, particularly in technical areas and in fields such as management that are important for national development. We plan in future analyses to assess the significance of that factor in the context of labor force needs in Korea and other relevant considerations, such as return migration and remittance flows that may counterbalance to some degree the initial outflow of immigrants. The broader issue of costs and benefits of international migration must also be addressed in relation to historical and structural factors, but microanalysis of a particular cohort, as illustrated in this study, can provide an empirical referent that should carry at least equal weight in the search for practical and scientific understanding of immigration processes.

APPENDIX A

IMMIGRANT PRE-DEPARTURE ASSESSMENT SURVEY (IPDA): SUMMARY OF QUESTIONNAIRE

Demographic Data

Age, sex
Marital status
— If married, years of marriage
Birthplace and usual residence, how long at usual residence
Migration history since age 15
Spouse's birthplace and ethnicity
Religion and rating of importance of religion

Human Resources

Educational attainment in home country (also for spouse)
Major field (for those with some college)
Vocational or technical training completed
English language training (in addition to formal schooling)
Professional licenses or certificates held
English ability (self-rated, 5 items)
Whether attended school in United States
— Type of school, how long attended
— Whether degree
— Whether had scholarship
Whether previously worked in the United States
— Type of work
— How long worked
Work experience or activity status during 12 months before departure for the United States
— Type of work (or activity status: not employed, looking for work; student; housekeeping; retired; etc.)
— Whether self-employed
— Whether worked in family business or farm
— Hours worked per week
— Income
All previous jobs held for 1 year or more
— Type of work
— Duration
Spouse's work or activity status during 12 months before departure for the United States
— Type of work (or activity status: not employed, looking for work; student; housekeeping; retired; etc.)

  - Whether self-employed
- Whether worked on family business or farm
- Income

Respondent's father's occupation

Respondent's mother's occupation

Self-listing of respondent's skills that might be helpful in obtaining a job in the United States

Expected education/work/business in the United States

Expectations for additional education or training in the United States

Expected type of work or activity status in the United States

- Whether job is prearranged and if so:
  - Is it in a business owned by a relative?
  - Type of work
  - Location
  - Who arranged job?
- If job is not prearranged:
  - Who will help or how will respondent find job?
  - What kind of job is expected?
  - Location for job search (city and state)
- Expectations for first job:
  - When expect to begin work?
  - How many working hours per week?
  - How much income?
  - How long expect to stay in first job?
- Expectations for job 5 years after arrival in the United States:
  - Type of job
  - Income
- Does spouse have prearranged job in the United States?
  - Type of job

Does respondent or spouse expect to start a business in the United States? If so:

- Sole or joint ownership
- Type of business (or businesses)
- Location of business (city and state)
- How soon after arrival will respondent or spouse start business?
- How much capital needed?
  - Already have enough capital?
  - If not, how will respondent or spouse obtain capital?
- Whether family members will work in business
- Whether nonfamily members will be employed in the business
- Whether respondent or spouse will have any partners in business
- Whether respondent or spouse currently owns property in the United States

— Whether any family members currently own or manage a business in the United States, and if so:
Type of business(es)
Location (city and state)
Number of employees
Whether respondent plans to work in business sometime

Immigration Processes

Year first thought about immigrating
— Reasons
Year immigration petition was filed
Degree of clarity about the United States as place to live
Whether had much contact with Americans
— Type of contacts
Whether considered moving to countries other than the United States
— Which countries
Whether ever been to the United States
— Frequency, length of visits
Whether ever been to any other country
City and state of first intended residence in the United States
— Reasons for choice of destination
— How long expect to stay, where moving to next and why
Whether applied to immigrate on own or through agency
— Cost of agency assistance
Main reasons for immigrating
Whether decision mostly own or involved others
Whether family members opposed move
Whether has had problems getting money for move
Degree of difficulty with paperwork and official arrangements
— What was most difficult
Suggestions for home government and U.S. government to make process easier
Whether arrangements made for place to stay in the United States
— Expected cost of initial housing
How much money sent to the United States/will take to the United States?
Intending to keep any house, land, or business in Korea?

Family Networks

Listing and details below for following family members of respondent: father, mother, spouse/fiancé(e), children, siblings
— City, state, and country of residence
— Age
— Marital status (if married: number of children)

  — Whether will accompany respondent to United States (or year of immigration if in the United States)
— Whether will move to the United States someday/within 3 years
List of other relatives and in-laws in the United States
List of other relatives who may move to the United States someday
Year first family members moved to the United States

Place Perceptions

Ratings on scale from 0 to 10 for home country and for the United States on:
— Wages
— Friendliness of people
— Variety of enjoyable things to do
— Opportunities to get ahead economically
— Opportunities for improving social status
— Moral climate
— Educational opportunities
— Freedom from crime
— Standard of living
— Political conditions
— Providing rewards for hard work and ability
Worst thing respondent has heard about the United States
Worst thing about living in home country

Expectations

Self-rating of current social class and rating of expected social class in the United States after 2 years
Rating of life satisfaction before departure and expected satisfaction after 2 years and after 5 years in the United States
Whether problems expected in:
— Housing: what type of problem?
— Cost of living: what type of problem?
— Jobs: what type of problem? For respondent, family members, or both?
— Schooling: what type of problem? For respondent, family members, or both?
— Language: what type of problem? For respondent, family members, or both?
Whether Koreans are discriminated against in the United States
— In which ways?
Whether respondent expects discrimination to be a serious problem personally
Whether respondent expects assistance in the United States from:
— Embassy
— Church
— U.S. government agencies

— Employer
— Friends in the United States
— Relatives in the United States
— Relatives in Korea
Which person/agency will give most help?
— Type of help expected
Expect to apply for U.S. citizenship?
— Why or why not?
Expect to return to Korea for visit?
Expect to return to Korea to live permanently?
— Why?
What things will be missed when respondent leaves?
What things is respondent looking forward to in the United States?

APPENDIX B

STATUS ADJUSTERS SURVEY (SAS): SUMMARY OF QUESTIONNAIRE

Human Resource Inventory

Education obtained in home country/other country
Education obtained in the United States
Job experience in home country/other country
Job experience in the United States
Professional or technical certification
Self-rating of job skills

Immigration History and Immigration Potential

Status at first entry into the United States
History of departures and arrivals, changes in status
Reasons for change from nonimmigrant to immigrant status
Spouse, children, and parents: location and status
Other immediate relatives: location and status
Plans for petitioning of relatives

Labor Force and Community Impacts

Description of any investments and business ownership in the United States
If employer: type of business, capital investment, number and type of employees, income
If employee: industry/business in which employed, job classification, length of employment, income
Residential history in the United States: where resided, how long, why moved
Use of public services or entitlement programs: which used, duration
Plans for future changes in employment or business activity

Adaptation and Settlement

Nature of problems encountered in the United States: language, jobs, housing
Long-term plans regarding naturalization, home purchase, retirement in home country or the United States

Personal Data

Age, sex, marital status

REFERENCES

Arnold, Fred, Benjamin V. Cariño, James T. Fawcett, and Insook Han Park

1987 The potential for future immigration to the United States: A policy analysis for Korea and the Philippines. Working Paper No. 48, Honolulu: East-West Population Institute, East-West Center.

Arnold, Fred, Urmil Minocha, and James T. Fawcett

1987 The changing face of Asian immigration to the United States. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands.* New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

Bonacich, Edna, Ivan Light, and Charles Choy Wong

1976 Small business among Koreans in Los Angeles. In Emma Gee (ed.), *Counterpoint: Perspectives on Asian Americans.* Los Angeles: University of California Press.

1977 Koreans in Business. *Society* 14(6):54–59.

Bouvier, Leon F., and Anthony J. Agresta

1987 The future Asian population of the United States. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands.* New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

Choy, Bong Youn

1979 *Koreans in America.* Chicago: Nelson Hall.

Fawcett, James T., and Fred Arnold

1987 Explaining diversity: Asian and Pacific immigration systems. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands.* New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

Gardner, Robert W., Bryant Robey, and Peter C. Smith

1985 Asian Americans: Growth, change, and diversity. *Population Bulletin* 40(4).

Glaser, William A.

1975 *The Brain Drain: Emigration and Return.* United Nations Institute for Training and Research, Report No. 22. London: Pergamon.

Hurh, Won Moo

1987 The Korean community in America: Future prospects and issues. Paper prepared for the Annual Meeting of the Korean American University Professors Association, Atlanta, Georgia.

Hurh, Won Moo, Hei C. Kim, and Kwang Chung Kim

1978 *Assimilation Patterns of Immigrants in the Chicago Area.* Washington, D.C.: University Press of America.

Hurh, Won Moo, and Kwang Chung Kim

1980 Social and occupational assimilation of Korean immigrant workers in the United States. *California Sociologist* 3 (January):125–142.

1984 *Korean Immigrants in America: A Structural Analysis of Ethnic Confinement and Adhesive Adaptation.* Cranbury, N.J.: Fairleigh Dickenson University Press.

1987 Korean immigrants in the Chicago area: A sociological study of migration and mental health. Unpublished report to the National Institute of Mental Health, U.S. Department of Health and Human Services, Washington, D.C.

1988 Uprooting and adjustment: A sociological study of Korean immigrants' mental health. Final report submitted to National Institute of Mental Health, U.S. Department of Health and Human Services, Washington, D.C.

Jasso, Guillermina, and Mark R. Rosenzweig

1982 Estimating the emigration rates of legal immigrants using administrative and survey data. *Demography* 19(3):279–290.

Kim, Bok-Lim C.

1978 *The Asian Americans: Changing Patterns, Changing Needs.* Montclair, N.J.: Association of Korean Christian Scholars in North America.

Kim, David S., and Charles Choy Wong

1977 Business development in Koreatown, Los Angeles. In Hyung-Chan Kim (ed.), *The Korean Diaspora.* Santa Barbara, Calif.: ABC–Clio, Inc.

Kim, Hyung-Chan

1986 Koreans in the United States. In Hyung-Chan Kim (ed.), *Dictionary of Asian American History.* New York: Greenwood Press.

Kim, Illsoo

1981 *New Urban Immigrants: The Korean Community in New York.* Princeton, N.J.: Princeton University Press.

1984 Korean emigration connections to urban America: A structural analysis of premigration factors in South Korea. Paper prepared for the Conference on Asia–Pacific Immigration to the United States, East-West Population Institute, Honolulu.

1987 Korea and East Asia: Premigration factors and U.S. immigration policy. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands.* New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

Koo, Hagen, and Eui-Young Yu

1981 *Korean Immigration to the United States: Its Demographic Pattern and Social Implications for Both Societies.* Papers of the East–West Population Institute, No. 74. Honolulu: East–West Center.

Kuznets, P. W

1987 Koreans in America: Recent migration from South Korea to the United States. In Sidney Klein (ed.), *The Economics of Mass Migration.* New York: Paragon House.

Lee, Jeong-Sik

1987 Entrepreneurship and regional development: The case of Korea. *Korean Journal of Regional Science* 3:11–20.

Levine, Daniel B., Kenneth Hill, and Robert Warren (eds.)

1985 *Immigration Statistics: A Story of Neglect.* Washington: National Academy Press.

Light, Ivan

1980 Asian enterprise in America: Chinese, Japanese and Koreans in small business. In Scott Cummings (ed.), *Self-Help in Urban America: Patterns of Minority Business Enterprise.* Port Washington, N.Y.: Kennikat Press.

1985 Immigrant entrepreneurs in America: Koreans in Los Angeles. In Nathan Glazer (ed.), *Clamor at the Gates: The New American Immigration.* San Francisco: Institute for Contemporary Studies Press.

Light, Ivan, and Edna Bonacich

1988 *Immigrant Entrepreneurs: Koreans in Los Angeles, 1965–1982.* Berkeley: University of California Press.

McClelland, David C.

1987 Characteristics of successful entrepreneurs. *Journal of Creative Behavior* 21(3):219–233.

Min, Pyung Gap

1986 Filipino and Korean immigrants in small business: A comparative analysis. *Amerasia Journal* 13(1):53–71.

1988 *Minority Business Enterprise: Korean Small Business in Atlanta.* New York: Center for Migration Studies.

n.d. Characteristics of immigrant entrepreneurs: Koreans in Los Angeles. Unpublished manuscript, Queens College, City University of New York, Flushing.

Min, Pyung Gap, and Charles Jaret

1985 Ethnic business success: The case of Korean small business in Atlanta. *Sociology and Social Research* 69(3):413–435.

Neidert, Lisa J., and Reynolds Farley

1985 Assimilation in the United States: An analysis of ethnic and generation differences in status and achievement. *American Sociological Review* 50(6):840–850.

Patterson, William

1988 *The Korean Frontier in America: Immigration to Hawaii, 1896–1910.* Honolulu: University of Hawaii Press.

Pernia, E. M.

1976 The question of the brain drain from the Philippines. *International Migration Review* 10(1):63–72.

Republic of Korea (R.O.K.), Ministry of Labor

1986 *Report on the Occupational Wage Survey.* Seoul.

Republic of Korea (R.O.K.), National Bureau of Statistics (NBOS)

1959 *1955 Population Census of Korea.* Seoul: Ministry of Home Affairs.

1986 *Annual Report on the Economically Active Population Survey.* Seoul: Economic Planning Board.

1987a *Korea Statistical Handbook.* Seoul: Economic Planning Board.

1987b *1985 Population and Housing Census.* Seoul: Economic Planning Board.

Stahl, Charles W., and Fred Arnold

1986 Overseas workers' remittances in Asian development. *International Migration Review* 20(4):899–925.

United States (U.S.), Bureau of the Census.

1983 *Asian and Pacific Islander Population by State: 1980.* Supplementary Report, PC80-S1-12. Washington, D.C.: U.S. Government Printing Office.

United States (U.S.), General Accounting Office

1988 *Immigration: Data Not Sufficient for Proposed Legislation.* GAO/PEMO 89-8. Washington, D.C.: U.S. Government Printing Office.

United States (U.S.), Immigration and Naturalization Service (INS).

1966—. *Annual Report.* Washington, D.C.: U.S. Government Printing Office.

1978—. *Statistical Yearbook of the Immigration and Naturalization Service.* Washington, D.C.: U.S. Government Printing Office.

1988 *Immigration Statistics: Fiscal Year 1987.* Advance Report, June. Washington, D.C.: U.S. Government Printing Office.

1989 *1988 Statistical Yearbook of the Immigration and Naturalization Service.* Washington, D.C.: U.S. Government Printing Office.

Xenos, Peter S., Robert W. Gardner, Herbert R. Barringer, and Michael J. Levin

1987 Asian Americans: Growth and change in the 1970s. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands.* New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

Yu, Eui-Young

1983 Korean communities in America: Past, present, future. *Amerasia Journal* 10(2):23–51.

Yu, Eui-Young, Earl H. Phillips, and Eun Sik Yang (eds.)

1982 *Koreans in Los Angeles: Prospects and Promises.* Los Angeles: Center for Korean American and Korean Studies, California State University.

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The New Filipino Immigrants to the United States: Increasing Diversity and Change

Benjamin V. Cariño,
James T. Fawcett,
Robert W. Gardner,
and Fred Arnold

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ABSTRACT This study provides a detailed portrait of a large, representative group of recent Filipino immigrants to the United States—their backgrounds before immigration, their demographic and socioeconomic characteristics, their family networks, and their plans, perceptions, and hopes regarding life in the United States. The analysis, which is based on scientifically selected samples of adult Filipinos who were issued immigrant visas in 1986, reveals the demographic and human resource characteristics of this cohort and the relationships between those characteristics and U.S. immigration policy. Other topics examined include expectations about various aspects of life in the United States, comparisons of the United States and the Philippines on a number of important place dimensions, the role of family networks in the immigration process, and the factors related to occupational choices, including entrepreneurship.

The report is based on the analysis of two surveys that are part of a larger comparative, longitudinal study of Filipino and Korean immigrants. The main study analyzed here is the Philippines Immigrant Pre-Departure Assessment (IPDA) Survey, which entailed face-to-face interviews in Manila with 2,077 new immigrants. The IPDA interviews were conducted just after an immigrant visa had been issued by the U.S. Embassy. The Status Adjusters Survey (SAS) involved Filipinos already in the United States on nonimmigrant visas who "adjusted" to immigrant status in 1986. A total of 1,565 adult Filipinos participated in this mail survey.

Data from the two surveys are analyzed here on the basis of their intrinsic value for characterizing a significant group of recent immigrants, for example, for showing their diversity and relating it to immigration policy goals. The same data will be used in future reports as a baseline against which to measure changes occurring within this cohort of immigrants at different stages of their experience in the United States, as revealed through longitudinal follow-up surveys that are under way.

Philippine immigration to the United States is an active phenomenon that continues a pattern started with the recruitment of workers by sugar plantation owners in Hawaii and California in the early 1900s (Lasker 1969). The first major recruitment of Filipino labor occurred in 1905, and by 1929 the Filipino population in the United States was estimated at 80,000 (Pido 1986). The flow of Filipino immigrants during that early period was facilitated by a U.S. law that, until 1934, allowed Filipinos to move to the United States freely as U.S. nationals. When the Philippines was granted commonwealth status in 1935, Filipino immigration to the United States was virtually halted. A national-origins quota system limited it to an average of no more than 100 Filipinos annually in the next decade (Pido 1986). During the two decades after the Philippines gained its independence from the United States in 1946, the number of Filipino immigrants rose substantially, although it did not exceed 4,000 in any given year (Arnold, Minocha, and Fawcett 1987: Table 6.1). Structural, political, and cultural perspectives on Filipino immigration to the United States have been reviewed in the sources cited above, but until recently the attention paid to this topic has not been commensurate with its importance in the overall picture of immigration to the United States (Cariño 1987).

The 1965 U.S. immigration reform, which eliminated the restrictive national-origins quota system and allowed entry primarily on the basis of either kinship with persons already in the United States or occupational characteristics, dramatically increased the number of immigrants admitted from Asia as a whole, from a little more than 93,000 in the preamendment period (1961-65) to more than 1.3 million in the 1981-85 interval (Table 1). The flow of Asian admissions has remained strong up to the present. The sudden upsurge in the number of immigrants has been especially pronounced in the case of the Philippines, rising from less than 16,000 in the 1961-65 period to more than 221,000 in the 1981-85 interval. Growth was particularly rapid during the period 1966-70, immediately following the abolition of the national-origins quota system. Table 1 also shows that during the 10 years between 1966 and 1975, almost 30 percent of all Asian immigrants came from the Philippines. More recently, the proportion of Filipinos among Asian immigrants has been about 20 percent.

As argued elsewhere (Cariño 1987), the Philippines is a special case among all countries in Asia owing to its former colonial relationship with the United States. This colonial heritage has produced, among other things, a pervasive Americanization of Philippine culture. It has also meant close business ties and strong military and political connections between the two countries. Coupled with the presence in the United States of a substantial Filipino American population dating from the early decades of the century, these factors allowed for a rapid response to the 1965 changes in the immigration law. Annually, more than 40,000 Filipinos have been admitted to the United States as immigrants since 1979. Currently just over 1 million in size, the Filipino population in the United States is projected to increase

Table 1. Asian and Philippine immigration to the United States, 1961-88: number of immigrants and Philippine immigration as a percentage of total Asian immigration

Country/ region	1961-65	1966-70	1971-75	1976-80	1981-85	1986-88
Asia	93,019	288,630	548,275	906,654	1,303,492	790,397
Philippines	15,929	85,636	153,254	206,962	221,166	153,315
% of Asia	17.1	29.7	28.0	22.8	17.0	19.4

Sources: INS (1969, 1970: Table 14; 1980, 1981: Table 13; 1982-84: Table IMM 1.3; 1985: Table IMM 2.3; 1986-88: Table 3).

to more than 2 million by the year 2,000 (Bouvier and Agresta 1987: Table 12.2).

Such massive immigration flows have implications for the sending society in formulating manpower training, development, and emigration-related policies, and for the host country in considering the economic and social effects of immigrants and future immigration reform. The exact nature of these implications is difficult to determine, however, because of the dearth of knowledge about the immigration streams, and this is true not only in the case of the Philippines but for other source countries as well. Beyond the magnitude of the flows, little information exists about them—about the human capital endowments and other characteristics of the immigrants, the niche they will occupy in the U.S. labor market, their family networks, and, in general, their expectations and plans for life in the United States. Scholars and policymakers, in the United States in particular, have long decried the shortcomings of available data on the ever-changing composition and characteristics of U.S. immigration streams (e.g., Levine, Hill, and Warren 1985).

This paper focuses on recent immigrants from the Philippines, currently the largest Asian source country for legal immigrants to the United States. In presenting major findings from the Immigrant Pre-Departure Assessment (IPDA) Survey and the Status Adjusters Survey (SAS), which collected a unique set of data on the 1986 cohort of Filipino and Korean immigrants, it highlights the demographic and human resource characteristics of Philippine immigration streams to the United States and analyzes other data from the surveys to provide a fuller portrait of recent Filipino immigrants.

The Philippine surveys reported here represent part of a much larger project that has a comparative, longitudinal design. Similar baseline data have been analyzed for Korea (Park et al. 1990) and some comparative reports from the project have been prepared (Arnold et al. 1989; Asis 1990; Fawcett et al. 1990). Two longitudinal follow-up surveys have recently been conducted, and additional surveys to analyze migrant adaptation and labor force behavior of Filipino and Korean cohorts over a six-year period are planned.

The entire effort, known as the Comparative Longitudinal Asian Immigration (CLAIM) Project, is guided conceptually by a migration system paradigm, as developed by Fawcett and Arnold (1987). This paradigm requires that equal attention be given to the origin and the destination of a migration flow, that efforts be made to examine both microlevel processes and macrolevel influences on the migration system, and that movements of people be viewed in the context of other dynamic linkages between places. Such an approach is needed, we believe, to comprehend the determinants and consequences of a migration flow, including its historical structure and contemporary dynamics.

The paper is organized into 11 sections. To provide a background for the analyses, the next section presents a brief description of the objectives, coverage, and sampling procedures of the IPDA Survey and the Status Adjusters Survey. The distribution of survey respondents by immigrant visa category is described and compared with that of the total immigrant population in 1986. The comparison allows us to determine whether there are sample biases. Major features of U.S. immigration policy are also described briefly, highlighting in the process the composition of various immigrant groups who are admitted to the United States. Later analyses in the present paper will examine the relationships between immigrant visa categories and immigrant characteristics, thus demonstrating in a concrete way the effects of U.S. immigration policy. The third section describes the demographic characteristics of the new Philippine immigrants, focusing on the variations that exist across immigrant groups in such variables as age, sex, and marital status. Comparisons between the survey samples and other relevant populations are made in part to examine selectivities in the immigration process. Another section documents the quality of human resources embodied in contemporary Filipino immigrants, focusing on such factors as educational attainment, language ability, and other skills. Employment status and occupations are examined in a section that looks at both predeparture work experience and work expectations after arrival in the United States. An examination of the immigrants' levels of income and social class is followed by an assessment of resource flows (both human and monetary) between the countries of origin and destination. Next, immigration processes are documented, with particular emphasis placed on the role of family networks in facilitating immigration decisions. Attention is given to departure arrangements in the Philippines and factors related to adaptation in the United States. A section discussing immigrants' expectations about occupations and further training in the United States is followed by another about problems they expect to encounter in the new country and their plans for citizenship or return migration. In a final section we assess the implications of the study's findings for policies in both the sending and the receiving society.

THE SURVEYS

Sampling and Data Collection

The main objective of the Immigrant Pre-Departure Assessment (IPDA) Survey is to collect detailed information about the 1986 cohorts of legal immigrants to the United States from the Republic of Korea and the Philippines, two of the largest source countries for Asian immigration. With the cooperation of the U.S. embassies in Manila and Seoul, the project used an innovative procedure of gathering survey data on immigrants prior to their departure from their home countries. The survey covered four broad topics: immigrant resources and characteristics, expectations and plans for life in the United States, visa procedures and travel plans, and the migration process. A summary of the questionnaire is presented in Appendix 1.

A systematic sample of approximately 10 percent of new immigrant visa holders, ages 18–69, was selected in the Philippines and Korea throughout 1986. Altogether, 3,911 interviews were completed in the IPDA surveys for the two countries: 2,077 in the Philippines, and 1,834 in Korea.

The sampling procedure devised in Manila was simply to select every tenth adult visa holder at the time visa payments were made. Arrangements were made with the U.S. Embassy cashiers to attach a project announcement to the receipt of every immigrant selected for the sample and to instruct the prospective immigrant to show the project announcement to the embassy's interviewing officer after the immigrant visa had been approved. The embassy's interviewing officer then referred the visa holder to the research project's liaison person in the outer waiting lounge of the embassy. The liaison person in turn determined the eligibility of the prospective respondent and explained the main objectives of the research project. If the tenth visa holder belonged to a family group, the respondent was randomly chosen from among the adult members of the group. The respondent was then accompanied or referred to the project office (conveniently located across the street from the embassy) for the interview. The interviews in the Philippines were conducted in Tagalog, Ilokano, Cebuano, or English, according to the preference of the respondent.

In addition to immigrants, the IPDA sample included fiancés and fiancées of U.S. citizens. Technically fiancé(e)s are nonimmigrants (they are issued nonimmigrant K visas). However, they are required to enter into a valid marriage within 90 days after entry into the United States. We included them in our sample both because they intended to become immigrants soon after their arrival in the United States and because their applications were processed in the same fashion as immigrant visa applications.

The overall response rate for the IPDA Survey in the Philippines was somewhat low, around 70 percent, for several reasons. A major factor was the long waiting time. Many applicants had to spend all day at the embassy waiting for their visas before they could be contacted by survey personnel about being interviewed. Moreover, the survey was conducted at a time when the Philippines was rocked by political turmoil surrounding the fall of the Marcos regime and the formation of the Aquino government. Demonstrations were held outside the embassy throughout the year. Frequent flooding of the main street outside the embassy (due to heavy rains) and occasional electrical blackouts in the project office also made survey conditions difficult. Given these circumstances, the response rate can be considered quite satisfactory. The final IPDA sample represents 8 percent of eligible adults issued immigrant visas at the Manila embassy in 1986.

"Status adjusters," or those who apply for immigrant visas while they are in the United States as nonimmigrants, were not included in the IPDA sample. In 1986, 25 percent of the cohort of Filipino immigrants and 18 percent of the Korean cohort of ages 18–69 were status adjusters. To fill this data gap, we conducted a mail survey of all adult Filipino and Korean status adjusters whose immigrant visas were issued during the latter half of 1986. The topics covered in the questionnaire for this Status Adjusters Survey (SAS) are shown in Appendix 2. A total of 2,114 immigrants responded to this mail questionnaire: 1,565 Filipinos and 549 Koreans. The Filipino sample represents 17 percent of all adult status adjusters from the Philippines in 1986. The SAS study was conducted with the cooperation of the U.S. Immigration and Naturalization Service (INS). Selected results from the SAS are reported here, particularly where the variables are comparable to those in the IPDA survey sample. To show patterns for the entire 1986 cohort of Filipino immigrants, the IPDA and SAS samples are weighted and combined for a number of analyses where cohort profiles are useful. Available information on the entire cohort of Filipino immigrants in 1986 and census data on the population of the Philippines are also reported here for purposes of comparison with the IPDA and SAS findings.

Distribution of the Survey Samples by Visa Category

Throughout this report, we show breakdowns of data according to different visa categories of admission. Visa categories, and the admission criteria that accompany them, are the operational aspect of U.S. immigration law. To understand those categories, some knowledge of the basic features of U.S. immigration law is required.

The 1965 Immigration and Nationality Act basically recognizes two types of immigrants to the United States—those who are subject to the numerical limitation of 20,000 persons per year from one country, and those who are exempt from this numerical limitation. The latter category, those exempt from numerical limitations, consists mainly of immediate relatives of U.S. citizens, including spouses (IR-1), minor children (IR-2), and parents (IR-5). (The codes in parentheses represent immigrant visa categories.) Immigrants who are subject to numerical limitations are admitted under a preference system designed to achieve two goals: to facilitate family reunification and to admit workers needed by the U.S. economy. These features of U.S. immigration policy have important implications for the composition of immigration flows.

Briefly, the six preference categories for immigrants subject to numerical limitations are the following:

First preference (P-1)	Unmarried adult children of U.S. citizens
Second preference (P-2)	Spouses and unmarried adult children of resident aliens and their children

Fourth preference (P-4)	Married children of U.S. citizens and their spouses and children
Fifth preference (P-5)	Siblings of U.S. citizens and their spouses and children
Third preference (P-3)	Professionals and artists and their spouses and children
Sixth preference (P-6)	Skilled and unskilled workers in short supply and their spouses and children

The first, second, fourth, and fifth categories are family preference categories, whereas the third and sixth are occupational preference categories. (A separate classification has been established for refugees and their dependents.) The 1965 immigration law places quotas on the number of immigrants who may be admitted under each admission group. In the implementation of the law, however, unused slots under one preference may be used by the next lower preference.

Table 2, which shows the distribution of IPDA and SAS survey respondents and the 1986 immigrant cohort by visa category, indicates the extent to which the survey samples are representative of the populations from which they are drawn. On the whole, the distribution of the combined IPDA and SAS samples (next-to-last column) among the immigrant categories generally corresponds to the distribution of the total immigrant population (last column), there being only a slight overrepresentation of the survey respondents in the family preference categories and a small shortfall in the occupational preference categories among skilled and unskilled workers. High levels of correspondence are also evident for comparisons between the IPDA sample and the population of new arrivals, and between the SAS sample and the population of status adjusters.

The data in Table 2 also indicate that nearly two-thirds of the 1986 cohort of Filipino immigrants were admitted outside the numerical limitation. Among status adjusters, fully 92.4 percent were in the exempt category of immigrants. As shown in Table 3, this high percentage can be attributed to the very large number of Filipinos who enter the United States as nonimmigrants and adjust to permanent status through marriage to American citizens. Although a substantial proportion of them were admitted as fiancé(e)s, many also entered as tourists or temporary workers. The higher proportion of immigrants admitted outside the numerical limitation is consistent with the pattern of admissions from all Asian countries in 1985, not counting the refugee admissions from Indochina (see Arnold, Minocha, and Fawcett 1987).

Among all immigrants admitted within the numerical limitation in 1986 (Table 2), a strong majority came under the family preference categories. The predominance of family preference immigrants over occupational preference immigrants is a pattern that continues the rapid transformation of immigrant admissions from the Philippines in recent years. During the

Table 2. Survey samples and immigrant populations, by immigrant visa category (percentage distributions)

Immigrant visa category	IPDA[a]	New arrivals[b]	SAS[c]	Status adjusters[d]	IPDA + SAS[e]	1986 immigrant population[f]
Exempt from numerical limitation						
IR-1, spouse of citizen	18.8	22.2	81.7	81.1	34.5	36.0
IR-2,[g] child of citizen or orphan for adoption	7.4	4.4	0.4	0.8	5.7	3.6
IR-5, parent of adult citizen	19.9	21.4	9.9	9.9	17.4	18.7
K-1, fiancé(e) of citizen	7.1	6.9	0.0	0.0	5.3	5.3
Special immigrants[h]						
SD, minister of religion	0.3	0.2	0.7	0.7	0.4	0.3
SE, employee of U.S. government abroad	2.0	1.3	0.0	0.0	1.5	1.0
Total exempt	55.5	56.5	92.8	92.4	64.8	64.9
Subject to numerical limitation[h]						
Family preferences						
P-1, unmarried son or daughter of citizen	10.9	10.4	0.6	1.1	8.3	8.2
P-2, spouse or unmarried son or daughter of alien	11.7	13.0	0.9	0.7	9.0	10.2
P-4, married son or daughter of citizen	4.5	3.0	0.0	0.2	3.4	2.3
P-5, brother or sister of citizen	11.9	9.3	0.3	0.3	9.0	7.2
Total family	39.0	35.7	1.9	2.3	29.8	27.9

Occupational preferences						
P-3, professional or artist	3.7	3.7	1.4	1.4	3.1	3.1
P-6, skilled or unskilled worker	1.8	4.1	4.0	3.9	2.4	4.1
Total occupational	5.5	7.8	5.4	5.3	5.5	7.2
Total subject to limitation	44.5	43.5	7.2	7.6	35.2	35.1
Number	2,077	29,652	1,560	9,086	i	38,738

a. The IPDA Survey was conducted in Manila during calendar year 1986. The age range for the new visa holders eligible for the sample was 18-69. (Owing to sampling or reporting error, the sample includes four persons of age 17 and three persons over age 69.)

b. Statistics on new arrivals for 1986 were calculated from INS data tapes. All Filipinos of ages 18-69 issued new immigrant visas during calendar year 1986 are counted, with the exception of status adjusters and the following immigrant visa categories: K-25 (six cases), K-26 (12 cases), and SJ-2 (two cases). The calculations for K visas were based on figures from the nonimmigrant group of new arrivals of ages 18-69. Conditional visas are treated the same as nonconditional visas; e.g., the category IR-1 includes CR-1 visas.

c. The SAS sample was designed to encompass all Filipinos of ages 18-69 who adjusted their status from nonimmigrant to immigrant during the last six months of 1986. (Owing to sampling or reporting error, the sample includes eight persons over age 69.) Five cases for whom visa status was unknown are excluded from this table.

d. Statistics on status adjusters for 1986 were calculated from INS tapes. All Filipinos of ages 18-69 who adjusted from nonimmigrant to immigrant status during calendar year 1986 are included, with the exception of those who adjusted to categories AS-6 (seven cases), AS-7 (three cases), AS-8 (one case), CU-6 (one case), CU-7 (two cases), MR-6 (35 cases), RE-6 (one case), RE-7 (one case), SJ-6 (11 cases), SJ-7 (10 cases), XB-3 (one case), Z-11 (eight cases), Z-13 (five cases), and Z-43 (one case).

e. Weights were assigned according to the proportion of new arrivals (.751) and the proportion of status adjusters (.249) among all Filipino immigrants of ages 18-69 during calendar year 1986, according to INS statistics.

f. The immigrant population of ages 18-69 for calendar year 1986 was calculated from INS data tapes.

g. This category includes five orphans (IR-3 and IR-4) who apparently qualified because they were under age 16 when the petition was filed. The SAS sample includes one person with an IR-7 visa (equivalent to IR-2).

h. The categories of special immigrants and all categories that are subject to numerical limitation include accompanying "derivative cases" or "beneficiaries" (spouses and children) along with the "primary" or "principal" immigrants who qualified for the visa.

i. Number of cases is omitted for the combined IPDA + SAS column because calculations are weighted.

Table 3. Immigrant admission category, by prior nonimmigrant visa category: SAS, 1986

	Nonimmigrant entry visa								
Immigrant visa category after status adjustment	Fiancé(e): K	Business: B1	Tourist: B2	Student: F	Exchange visitor: J	Temporary worker: H	Combined: B1/B2	Others	Total
Immediate relatives									
Spouse of citizen (IR-1)	489	71	384	39	9	143	100	21	1,256
Child of citizen (IR-2)	3	0	3	0	0	0	0	0	6
Parent of citizen (IR-5)	0	7	119	3	5	1	5	10	150
Family preference									
Unmarried son or daughter of citizen (P-1)	1	0	3	1	0	3	0	2	10
Spouse or unmarried son or daughter of alien (P-2)	5	0	0	0	1	5	0	3	14
Married son or daughter of citizen (P-4)	0	0	0	0	0	0	0	0	0
Brother or sister of citizen (P-5)	0	0	2	2	1	0	0	0	5
Occupational preference									
Professional or artist (P-3)	0	0	9	1	6	5	0	0	21
Skilled or unskilled worker (P-6)	0	1	6	4	6	43	1	1	62
Total	498	79	526	50	28	200	106	37	1,524[a]

a. Excludes 11 "other" (religious workers) and 24 "don't know" responses; also excludes six missing cases (five in visa category after adjustments and one in entry visa category).

period 1971-75, more than half (51.5 percent) of the Filipino immigrants subject to numerical limitation came under the occupational preference categories and virtually all of them were professionals or artists (Table 4). The situation changed drastically when the proportion of immigrants under the occupational categories dropped to 19 percent in the 1976-85 period. There has also been a substantial shift in the composition of the occupational preference immigrant group. Between 1966-70 and 1981-85, the number of professionals and artists dropped by 86 percent while the number of skilled and unskilled workers more than tripled. Substantial shifts have also occurred in the number of dependents (spouses and children) among occupational preference immigrants.

With regard to family preference categories (Table 5), the predominance of second preference immigrants (spouses and unmarried adult children of resident aliens, P-2) and of fifth preference relatives (siblings and their

Table 4. Occupational preference immigrants from the Philippines: 1966-88

Occupational preference visa category	1966-70	1971-75	1976-80	1981-85	1986-88
Professional or artist					
Number	17,134	24,002	6,349	2,410	1,461
Percentage of numerically limited immigrants	27.8	24.9	6.4	2.5	2.5
Skilled or unskilled worker					
Number	1,327	19	2,017	4,564	2,915
Percentage of numerically limited immigrants	2.2	a	2.0	4.7	5.1
Spouse and children of professional or worker					
Number	12,069	25,585	10,669	11,496	7,305
Percentage of numerically limited immigrants	19.6	26.6	10.8	11.8	12.7
Total occupational preference immigrants					
Number	30,530	49,606	19,035	18,470	11,681
Percentage of numerically limited immigrants	49.5	51.5	19.3	19.0	20.3
Total immigrants subject to limitation	61,688	96,357	98,480	96,972	57,697

Sources: 1966-77: INS (*Annual Report*, Table 7A); 1978-79: INS (*Statistical Yearbook*, Table 7A); 1980-81: INS (*Statistical Yearbook*, Table 5); 1982-85: INS (*Statistical Yearbook*, Table 2.1); 1986-88: INS (*Statistical Yearbook*, Table 5).

a. Less than 0.05 percent.

families, P-5) is noticeable. Over the 20-year period from 1966 to 1985, second preference immigrants have far outnumbered, in absolute terms, all other family preference immigrants in the Philippines, although their proportion has decreased in recent years. There have been significant gains in the immigration of fifth preference (siblings) and first preference (unmarried adult children of citizens), but their absolute numbers are still smaller than those of the second preference immigrants.

Table 5. Family preference immigrants from the Philippines: 1966–88

Family preference visa category[a]	1966–70	1971–75	1976–80	1981–85	1986–88
Unmarried son or daughter of citizen (P-1)					
Number	1,501	1,805	2,926	11,315	11,642
Percentage of numerically limited immigrants	2.4	1.9	3.0	11.7	20.2
Spouse or unmarried son or daughter of alien (P-2)					
Number	12,924	44,510	61,904	34,204	14,561
Percentage of numerically limited immigrants	21.0	46.2	62.9	35.3	25.2
Married son or daughter of citizen (P-4)					
Number	6,891	198	3,992	9,701	5,874
Percentage of numerically limited immigrants	11.2	0.2	4.1	10.0	10.2
Brother or sister of citizen (P-5)					
Number	9,774	97	9,783	23,211	13,837
Percentage of numerically limited immigrants	15.8	0.1	9.9	23.9	24.0
Total family preference					
Number	31,090	46,610	78,605	78,431	45,914
Percentage of numerically limited immigrants	50.4	48.4	79.8	80.9	79.6
Total immigrants subject to limitation	61,688	96,357	98,480	96,972	57,697

Sources: 1966–77: INS (*Annual Reports*, Table 7A); 1978–79: INS (*Statistical Yearbook*, Table 7A); 1980–81: INS (*Statistical Yearbook*, Table 5); 1982–85: INS (*Statistical Yearbook*, Table 2.1); 1986–88: INS (*Statistical Yearbook*, Table 5).

a. Excludes derivative cases (accompanying spouses and children as beneficiaries) in the category for the principal visa holder in this table and in subsequent tables where not otherwise specified.

In the sections that follow, we compare the survey samples with relevant populations and make comparisons among subgroups within the survey samples. At one level, the human resource characteristics of immigrants who are exempt from numerical limitations (the immediate relatives of U.S. citizens) are compared with those who are subject to such limitation (family preferences and occupational preferences). At another level, we examine the variations between immigrants who enter through the family reunification provisions of the immigration law and those who enter on the basis of occupational skills. For variables that are common to both the IPDA and SAS surveys, we also make comparisons between the predeparture immigrants and the status adjusters. Finally, the disparities that exist between the principal (or primary) immigrants on one hand, and their beneficiaries (i.e., the accompanying spouses and children of the principal immigrants, or "derivative cases") on the other, are documented. The contrasts among these subgroups will provide insight into the effects of the numerical limits and the preference system that currently govern the admission of immigrants to the United States, as well as of the mechanisms by which nonimmigrants are adjusted to permanent status.

DEMOGRAPHIC CHARACTERISTICS

For contextual purposes we analyze in this section the major demographic characteristics of the survey respondents and compare them with the total cohort of immigrants in 1986 and with the population of the Philippines as a whole. As already noted, comparison with the total cohort of immigrants will enable us to determine whether there are any biases in the survey sample. Comparison with the national population at the origin, in contrast, will reveal the demographic selectivities that are taking place in the immigration process.

The comparison between the 1986 immigrants and the population at the origin relies on census data on the Philippine population as a whole, but data on the Philippine population are not available beyond 1984 and therefore are not directly comparable to the 1986 information on immigrants. However, it is reasonable to assume that the basic demographic characteristics of the Philippine population have remained more or less stable over the two-year period in question.

Age and Sex

The demographic characteristics of the survey samples are similar to those of the comparable immigrant population, i.e., the 1986 cohort. In their sex distribution (Table 6), the IPDA and SAS samples together almost mirror the characteristics of the total immigrant population, lending credence to the survey sampling procedure. The sex distribution of both the survey respondents and the 1986 immigrant population is heavily dominated by

Table 6. Sex distribution for persons of ages 20 and over for survey samples, total immigrant population (1986), and total Philippine population (1980)

Sex	IPDA	SAS	IPDA + SAS (weighted)	Immigrant population, 1986	Philippine population, 1980
Males	42.3	22.1	37.3	37.2	49.5
Females	57.7	77.8	62.7	62.8	50.5
Both sexes	100.0	99.9	100.0	100.0	100.0
Number	1,874	1,533[a]		36,935	22,621,272

Sources: Immigrant population: INS (1986, *Statistical Yearbook*, Vol. 2, Table 12). Philippine Population: NCSO (1983, Table 3).

a. Excludes from the analysis 10 cases for whom data were missing.

females, reflecting the trend that has characterized Filipino immigration to the United States since 1960 (Pido 1986). The predominance of females is even more pronounced among status adjusters (SAS respondents) than among predeparture immigrants (IPDA respondents). As previously noted, adjustment to permanent status is achieved by a strong majority of nonimmigrant Filipinos (over 80 percent) through marriage to American citizens.

Comparison of the survey samples with the population at the country of origin reveals the sex selectivity of Filipino immigration to the United States, which can be easily discerned in the fairly even sex structure of the Philippine population as a whole (last column of Table 6) as compared with the female-dominant structure of the survey samples. The predominance of females in Philippine immigrant flows has been attributed by Pido (1986) to U.S. immigration policies and laws implicitly favoring the immigration of women. Pido points out that in the earlier period, when the laws were restricted to national origin quotas for nonwhite immigrants, for example, exceptions were made for wives but not for husbands of U.S. citizens. In recent years, the predominance of women can be partly accounted for by the growing number of wives of non-Filipino U.S. citizens in immigration flows to the United States. Historically, the largest group of Asian women who were reported as wives of U.S. citizens came from Korea, Japan, and the Philippines, the three Asian countries that have large concentrations of U.S. military personnel.

The female-dominant character of Filipino immigration to the United States can also be seen as an extension of internal migration patterns in the Philippines (see, for example, Eviota and Smith 1984). Indeed, rural-to-urban migration in the Philippines, particularly to Metro Manila (the main source area for Filipino immigrants to the United States) has been shown to be dominated by women (Cariño 1979; Pernia 1977; Flieger, Koppin, and Lim 1976). In this connection, the experience of South Asian countries provides a sharp contrast. U.S. immigration flows from South Asia have been characterized by the preponderance of males, although a growing trend toward convergence has also been noted. For India, Minocha (1987) attributes the converging trend to the increasing numbers of dependents in immigration flows.

Other studies have asserted, however, that the 1965 amendments to the U.S. immigration law brought about changes in the sex composition of the flows from Asia in general, and from the Philippines in particular (Keely 1973; Boyd 1971, 1974). The proportion of males increased substantially in the early 1970s, apparently as a result of the occupational preference provisions. Indeed, the immigration flows were more balanced in sex composition in the postamendment period, as shown in the increase in the immigrant sex ratio (number of males per 100 females) from 53 in the 1960-64 period to 68 in the 1970-74 interval. A slight further increase, to 71, has been calculated for the most recent five-year period, 1984-88 (data not shown).

The distribution by age categories of the combined IPDA and SAS samples also closely resembles that of the total 1986 immigrant population (Table 7), again reinforcing confidence in the sampling procedure. Comparison with the population of the Philippines seems to suggest that Filipino immigration to the United States is not selective of young people. Rather, the

Table 7. Age distribution of survey samples, total immigrant population (1986), and population of the Philippines (1984), ages 20-69

Age group	IPDA	SAS	IPDA + SAS (weighted)	Immigrant population, 1986	Philippine population, 1984
20-29	33.8	41.8	35.8	34.5	40.1
30-39	24.2	32.7	26.3	27.5	26.0
40-49	13.8	10.5	13.0	11.4	16.7
50-59	14.9	7.2	13.0	13.3	10.8
60-69	13.3	7.8	11.9	13.3	6.5
Total	100.0	100.0	100.0	100.0	100.1
Number	1,871[a]	1,525[b]		34,919	25,533,537
Mean age	39.5	35.5	38.6	37.5	36.8

Sources: 1986 immigrant population: INS (1986, *Statistical Yearbook*, Table 12). 1984 Philippine population: United Nations (1988, Table 7).

a. Excludes from the analysis 203 cases under age 20 and three cases over age 69.

b. Excludes from the analysis 23 cases under age 20, eight cases over age 69, and nine cases for whom data were missing.

age distributions of the IPDA Survey sample and the total immigrant population show somewhat greater representation in the older age categories, with correspondingly higher mean ages. Such a pattern contrasts sharply with internal rural-to-urban migration to Metro Manila, which has been observed to be selective of the young, and particularly of persons in the prime working ages. Such findings have prompted some scholars to conclude that internal migration flows in the Philippines represent in some sense a sociodemographic loss to rural areas (Zosa 1975). The fact that Filipino immigration to the United States is not selective of younger ages is somewhat surprising and may be a function of the long waiting lists of eligible immigrants in the Philippines, which results in delays of many years for immigrants in preference categories.

Table 8. Predeparture immigrants and status adjusters, by age and sex: IPDA and SAS, 1986

Sample and age group	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)						
17–19	101	11.3	102	8.6	203	9.8
20–29	241	27.0	392	33.1	633	30.5
30–39	203	22.7	250	21.1	453	21.8
40–49	120	13.4	138	11.7	258	12.4
50–59	119	13.3	159	13.4	278	13.4
60+	110	12.3	142	12.0	252	12.1
Total	894	100.0	1,183	99.9	2,077	100.0
Mean age	37.8		37.0		37.3	
Median age	33.5		31.8		32.6	
Status Adjusters (SAS)						
18–19	0	0.0	23	1.9	23	1.5
20–29	98	28.9	540	44.4	638	41.0
30–39	119	35.1	380	31.3	499	32.1
40–49	46	13.6	114	9.4	160	10.3
50–59	34	10.0	75	6.2	109	7.0
60+	42	12.4	84	6.9	126	8.1
Total	339	100.0	1,216	100.1	1,555[a]	100.0
Mean age[b]	39.7		34.7		35.8	
Median age[b]	36.0		31.2		32.3	
Weighted average of IPDA + SAS means	38.3		36.4		36.9	

a. Excludes from the analysis 10 cases for whom data were missing.

b. SAS means and medians are calculated from five-year data.

It should be noted that status adjusters and predeparture immigrants vary substantially in age distribution. As shown in the more detailed age-sex distribution of the two survey samples (Table 8), status adjusters, especially female status adjusters, had a younger age distribution than predeparture immigrants. The median age for female status adjusters was 31.2 years, compared with 36.0 years for males. This is evidently a reflection of the growing number of students, young workers, and fiancées who adjust to permanent status.

Table 9. Age distribution of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

	Immediate relatives		Family preference categories		Occupational preference categories		Others	
Sample and age group	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)								
17-19	106	9.6	79	9.8	12	10.5	6	12.5
20-29	327	29.6	282	34.8	16	14.0	8	16.7
30-39	177	16.0	232	28.6	40	35.1	4	8.3
40-49	63	5.7	145	17.9	36	31.6	14	29.2
50-59	208	18.8	57	7.0	8	7.0	5	10.4
60+	224	20.3	15	1.9	2	1.8	11	22.9
Total	1,105	100.0	810	100.0	114	100.0	48	100.0
Mean age	40.5		33.4		36.0		42.0	
Median age	35.4		31.9		36.0		43.5	
Status adjusters (SAS)								
18-19	21	1.5	2	6.9	0	0.0	0	0.0
20-29	610	42.7	12	41.4	14	16.7	1	9.1
30-39	442	30.9	7	24.1	44	52.4	6	54.6
40-49	130	9.1	4	13.8	23	27.4	3	27.3
50-59	101	7.1	4	13.8	3	3.6	1	9.1
60+	125	8.8	0	0.0	0	0.0	0	0.0
Total[a]	1,429	100.1	29	100.0	84	100.1	11	100.1
Mean age[b]	35.2		33.5		36.1		38.4	
Median age[b]	31.4		30.4		35.3		37.5	
Weighted average of IPDA + SAS means	39.2		33.4		36.0		41.1	

a. Excludes from the analysis 12 cases for whom data were missing.

b. SAS means and medians are calculated from five-year data.

Variations in age structure are likewise noticeable between immigrants in the exempt category (immediate relatives) and those who are subject to numerical limitation (Table 9). Among the IPDA respondents, the mean age of the immediate relatives of U.S. citizens was 40.5, which is higher than the mean age of family preference immigrants (33.4) and of occupational preference immigrants (36.0). Among status adjusters, the mean age of immediate relatives (35.2) was slightly higher than that of family preference immigrants (33.5) and slightly lower than that of occupational preference immigrants (36.1). An obvious explanation of the higher mean age of immediate relatives among predeparture immigrants is the fairly high proportion of parents in the immediate relatives category. (Parents are not admissable under any of the family preference categories.)

Variations in gender by immigrant visa category (Table 10) reveal women's dominance of the occupational preference categories, as well as most of the family categories. Only among family preference immigrants in the IPDA Survey were men more numerous than women (leaving aside the small number of "others"). The most extreme imbalances in favor of women are shown for status adjusters, among whom were many newlyweds.

Table 10. Sex distribution of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and sex	Immediate relatives		Family preference categories		Occupational preference categories		Others	
	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)								
Males	369[a]	33.4	446	55.1	47	41.2	32	66.7
Females	736[b]	66.6	364	44.9	67	58.8	16	33.3
Both sexes	1,105	100.0	810	100.0	114	100.0	48	100.0
Status adjusters (SAS)								
Males	305	21.3	7	24.1	17	20.2	9	81.8
Females	1,126	78.7	22	75.9	67	79.8	2	18.2
Both sexes[c]	1,431	100.0	29	100.0	84	100.0	11	100.0
Weighted IPDA and SAS								
Males		30.4		47.4		36.0		70.5
Females		69.6		52.6		64.1		29.5
Both sexes		100.0		100.0		100.1		100.0

a. Includes 11 fiancés (K–1 visas).

b. Includes 136 fiancées (K–1 visas).

c. Excludes from the analysis 10 cases for whom data were missing.

A review of the distribution of specific visa categories by sex in conjuction with IPDA Survey information on ethnicity of spouse (Table 11) reveals that the domination by females of recent Filipino immigration to the United States can be attributed both to the large number of wives and fiancées whose husbands or prospective husbands were not of Filipino ethnicity, and to a nearly equal number of wives whose husbands or prospective husbands were Filipino Americans, i.e., of Filipino ethnicity. Few Filipino immigrant men were engaged or married to non-Filipino women. As shown in the last column of Table 11, sex ratios varied widely across immigrant visa categories.

Marital Status

Filipino immigration to the United States differs from internal migration to Metro Manila in that it is not selective of single persons (Tables 12 and 13). In fact, among the combined IPDA and SAS samples, a higher proportion of persons (62 percent) was currently married than among the population of the Philippines as a whole (51 percent). An important difference between the predeparture immigrants and status adjusters should be noted, however: a much higher proportion of SAS respondents was currently married. Once again, this difference reflects the fact that many Filipinos enter the United States on nonimmigrant visas and subsequently attain immigrant status through marriage to a U.S. citizen. Of these, only 38 percent had been admitted to the United States as fiancé(e)s with a K visa.

Overall, wide disparities in marital status are evident across immigrant visa categories (Table 14). Most immigrants entering as immediate relatives or under occupational preferences were married (reflecting in part the noninclusion of children in our samples). Only in the case of IPDA family preference immigrants were singles in the majority. Under two of the family preference categories (P-1 and P-2), children must be single to be eligible for admission. However, brothers and sisters (P-3) can be admitted regardless of their marital status. The category for married adult children (P-4) had a small number of immigrants.

The IPDA and SAS surveys clearly document the demographic contrasts among immigrant groups. As summarized in Table 15, important differences emerged between status adjusters and predeparture immigrants. Compared with the IPDA respondents, status adjusters tended to be younger, yet more likely to be married and female. We also found substantial variations among immigrant types. At one extreme were the immediate relatives exempt from numerical limitation, who among IPDA respondents tended to be older, female, and married. Occupational preference immigrants from the IPDA occupied an intermediate position: when compared with the immediate relatives of U.S. citizens, they were less female-dominant, somewhat younger, and less likely to be married. At the other extreme were the numerically limited family preference immigrants, who

Table 11. Immigrant visa category of predeparture immigrants, by sex and ethnicity of spouse/fiancé(e): IPDA, 1986

Immigrant visa category	Number			Percentage			Sex ratio (males per 100 females)
	Males	Females	Both sexes	Males	Females	Both sexes	
Spouse of U.S. citizen (IR-1), citizen *not* of Filipino ethnicity	10	97	107	1.1	8.2	5.2	10.3
Fiancé(e) of U.S. citizen (K-1), citizen *not* of Filipino ethnicity	5	121	126	0.6	10.2	6.1	4.1
Marriage to non-Filipinos, subtotal	15	218	233	1.7	18.4	11.2	6.9
Spouse of U.S. citizen (IR-1), citizen of Filipino ethnicity	89	195	284	10.0	16.5	13.7	45.6
Fiancé(e) of U.S. citizen (K-1), citizen of Filipino ethnicity	6	15	21	0.7	1.3	1.0	40.0
Marriage to Filipino Americans, subtotal	95	210	305	10.6	17.8	14.7	45.2
Spouse of resident alien (P2-1)	35	23	58	3.9	1.9	2.8	152.2
Unmarried son or daughter of resident alien (P2-2)	95	83	178	10.6	7.0	8.6	114.5
Child of unmarried son or daughter of resident alien (P2-3)	3	3	6	0.3	0.3	0.3	100.0
Spouses and children of resident aliens, subtotal	133	109	242	14.9	9.2	11.7	122.0
Child under age 21 of U.S. citizen (IR-2)	81	67	148	9.1	5.7	7.1	120.9
Unmarried son or daughter of U.S. citizen (P1-1)	109	95	204	12.2	8.0	9.8	114.7
Child of unmarried son or daughter of U.S. citizen (P1-2)	12	10	22	1.3	0.9	1.1	120.0

Married son or daughter of U.S. citizen (P4–1)	26	15	41	2.9	1.3	2.0	173.3
Spouse of married son or daughter of U.S. citizen (P4–2)	15	14	29	1.7	1.2	1.4	107.1
Child of married son or daughter of U.S. citizen (P4-3)	16	8	24	1.8	0.7	1.2	200.0
Orphan adopted abroad (IR–3)	0	1	1	0.0	0.1	0.1	0.0
Orphan to be adopted (IR–4)	1	3	4	0.1	0.3	0.2	33.3
Children of citizens, subtotal	260	213	473	29.1	18.0	22.8	122.1
Brother or sister of U.S. citizen (P5–1)	63	34	97	7.1	2.9	4.7	185.3
Spouse of brother or sister of U.S. citizen (P5–2)	48	59	107	5.4	5.0	5.2	81.4
Child under age 21 of brother or sister of U.S. citizen (P5–3)	24	20	44	2.7	1.7	2.1	120.0
Siblings of citizens, subtotal	135	113	248	15.1	9.6	11.9	119.5
Parent of adult U.S. citizen (IR–5)	177	237	414	19.8	20.0	19.9	74.7
Parents, subtotal	177	237	414	19.8	20.0	19.9	74.7
Professional, highly skilled worker, or artist (P3–1)	16	18	34	1.8	1.5	1.6	88.9
Spouse of professional, highly skilled worker, or artist (P3–2)	13	14	27	1.5	1.2	1.3	92.9
Child of professional, highly skilled worker, or artist (P3–3)	8	8	16	0.9	0.7	0.8	100.0
Professionals, subtotal	37	40	77	4.1	3.4	3.7	92.5

Table 11. *(continued)*

Immigrant visa category	Number			Percentage			Sex ratio (males per 100 females)
	Males	Females	Both sexes	Males	Females	Both sexes	
Worker with needed skills or unskilled worker (P6–1)	2	23	25	0.2	1.9	1.2	8.7
Spouse of skilled or unskilled worker (P6–2)	5	4	9	0.6	0.3	0.4	125.0
Child under age 21 of skilled or unskilled worker (P6–3)	3	0	3	0.3	0.0	0.1	a
Workers, subtotal	10	27	37	1.1	2.3	1.8	37.0
Minister of religion (SD)[b]	4	3	7	0.5	0.3	0.3	133.3
Employee of U.S. government abroad (SE)[b]	28	13	41	3.1	1.1	2.0	215.4
Special immigrants, subtotal	32	16	48	3.6	1.4	2.3	200.0
Total	894	1,183	2,077	100.0	100.1	100.0	75.6

a. Sex ratio not calculated because respondents belonged to only one sex.

b. SD and SE categories include derivative cases (spouses and children).

Table 12. Marital status of predeparture immigrants and status adjusters, by sex: IPDA and SAS, 1986

Sample and marital status	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)						
Currently married	473	52.9	615	52.0	1,088	52.4
Never married	384	43.0	341	28.9	725	34.9
Engaged	16	1.8	140	11.8	156	7.5
Separated	5	0.6	6	0.5	11	0.5
Divorced	1	0.1	8	0.7	9	0.4
Widowed	15	1.7	72	6.1	87	4.2
Total	894	100.1	1,182	100.0	2,076[a]	99.9
Status adjusters (SAS)						
Currently married	315	92.9	1,125	92.4	1,440	92.5
Never married	16	4.7	39	3.2	55	3.5
Engaged	0	0.0	0	0.0	0	0.0
Separated	2	0.6	6	0.5	8	0.5
Divorced	3	0.9	11	0.9	14	0.9
Widowed	3	0.9	37	3.0	40	2.6
Total	339	100.0	1,218	100.0	1,557[b]	100.0
Combined IPDA and SAS (weighted)						
Currently married	62.8		62.1		62.4	
Never married	33.5		22.5		27.1	
Engaged	1.4		8.9		5.6	
Separated	0.6		0.5		0.5	
Divorced	0.3		0.7		0.5	
Widowed	1.5		5.3		3.8	
Total	100.1		100.0		99.9	

a. Excludes from the analysis one case for whom datum was missing.

b. Excludes from the analysis eight cases for whom data were missing.

tended to be even younger, predominantly male, and unmarried. As we have noted, these demographic variations can be attributed, in large part, to the preference system and the numerical limitations that govern the admission of immigrants to the United States. Also important to the character of immigrant flows is the nature of nonimmigrant admissions, since many tourists, students, and young temporary workers eventually find a way to achieve permanent legal status. And, of course, the history of the migrant flow will have a major effect on the type of immigrants petitioned by earlier immigrants under family reunification policies. Both historical

Table 13. Marital status of the population of the Philippines, ages 20–69, by sex: 1980

Marital status	Males Number	Males %	Females Number	Females %	Both sexes Number	Both sexes %
Married	8,511,080	50.7	8,614,162	50.6	17,125,242	50.7
Never married	7,869,898	46.9	7,280,778	42.8	15,150,676	44.8
Widowed	347,884	2.1	992,011	5.8	1,339,895	4.0
Divorced/separated	59,257	0.4	122,987	0.7	182,244	0.5
Total[a]	16,788,119	100.1	17,009,938	99.9	33,798,057	100.0

Source: NCSO (1983, Vol 2, Table 4).

a. Excludes "not stated" category.

Table 14. Marital status of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and marital status	Immediate relatives Number	Immediate relatives %	Family preference categories Number	Family preference categories %	Occupational preference categories Number	Occupational preference categories %	Others Number	Others %
Predeparture immigrants (IPDA)								
Currently married	721	65.3	267	33.0	69	60.5	31	64.6
Never married	152	13.8	518	64.0	39	34.2	16	33.3
Engaged	152	13.8	4	0.5	0	0.0	0	0.0
Separated	5	0.5	3	0.4	2	1.8	1	2.1
Divorced	6	0.5	2	0.3	1	0.9	0	0.0
Widowed	69	6.2	15	1.9	3	2.6	0	0.0
Total[a]	1,105	100.1	809	100.1	114	100.0	48	100.0
Status adjusters (SAS)								
Currently married	1,366	95.3	12	41.4	56	66.7	6	54.6
Never married	11	0.8	16	55.2	23	27.4	5	45.4
Engaged	0	0.0	0	0.0	0	0.0	0	0.0
Separated	8	0.6	0	0.0	0	0.0	0	0.0
Divorced	8	0.6	1	3.5	5	6.0	0	0.0
Widowed	40	2.8	0	0.0	0	0.0	0	0.0
Total[b]	1,433	100.1	29	100.1	84	100.1	11	100.0

a. Excludes from the analysis one case for whom datum was missing.

b. Excludes from the analysis eight cases for whom data were missing.

Table 15. Mean age, percentage female, and percentage married, by immigrant visa category: IPDA and SAS, 1986

	Percentage female		Mean age[a]		Percentage married[b]	
Immigrant visa category	IPDA	SAS	IPDA	SAS	IPDA	SAS
Immediate relatives	66.6	78.7	40.5	35.2	79.0	95.3
Family preferences						
Total	44.9	75.9	33.4	32.7	33.5	41.4
Principal immigrant	43.3	c	33.6	c	25.6	c
Beneficiaries	49.1	c	32.9	c	53.0	c
Occupational preference						
Total	58.8	79.8	36.0	36.1	60.5	66.7
Principal immigrants	69.5	c	38.4	c	59.3	c
Beneficiaries	47.3	c	33.5	c	61.8	c
All immigrants	57.5	78.7	37.4	35.2	52.1	92.8

Note: Table excludes special immigrants (SE and SD visa holders).

a. IPDA means calculated from single-year data; SAS means calculated from five-year data.

b. Includes those engaged to be married.

c. The distinction between principal and beneficiary visa status (also referred to as primary immigrants and derivative cases) cannot be determined from data collected in the Status Adjusters Survey.

and contemporary features are important for understanding the dynamics of a migration system.

HUMAN RESOURCES

In this section, we focus on the quality of human resources embodied in recent Filipino immigrants to the United States. Aside from such standard measures as educational attainment and occupational status, we look at factors that are particularly important in the efforts of the immigrants to adapt to the host society. These factors include the skills and special training of the immigrants and their facility in the English language. Where the data permit, the analyses highlight comparisons between survey samples and the population at the origin, and also comparisons among immigrant categories. In the process, we assess the effects of U.S. immigration policy on immigrant characteristics.

In interpreting these survey findings, it should be borne in mind that the basic demographic characteristics of the survey respondents closely resemble those of the adult immigrant cohort in 1986, generally confirming the representativeness of the study samples. And, with reference to comparisons with the population at the origin, it is worth remembering that the immigrant cohort is female-dominant; that is, there is substantial sex selectivity in the immigration process. Finally, the exclusion of children under age 18 from our sample is relevant for some aspects of U.S. immigration policy.

Main Source Areas and Urban Experience

Migration is often spatially selective, owing in part to chain migration processes. As shown in Table 16, Filipino immigrants to the United States are concentrated in certain areas of the country: Metro Manila and its environs, which is the main urban concentration in the country; the Ilocos region, which is the traditional rural source area for U.S. immigrants; and the two provinces where the major U.S. military facilities (Clark Air Force Base and Subic Naval Base) are located.

Thirty-nine percent of the combined IPDA and SAS respondents indicated Metro Manila as their usual place of residence, and another 12 percent came from the surrounding provinces. A fairly large proportion (14 percent) mentioned the provinces of the Ilocos region as their place of origin, while another sizable percentage (15 percent) had lived in the provinces of Zambales and Pampanga, sites of the U.S. base facilities. The rest of the respondents came from virtually all regions of the country, but with a few concentrations in urban centers in the southern Philippines, such as the cities of Cebu and Iloilo.

The fact that a large proportion of the survey respondents had lived in Metro Manila and its environs implies a fairly high degree of urbaniza-

Table 16. Main source areas of Filipino immigrants to the United States: IPDA and SAS, 1986

Source area	IPDA (%)	SAS (%)	IPDA + SAS (weighted) (%)
Metro Manila	36.4	48.0	39.3
Ilocos region[a]	15.8	6.9	13.6
U.S. base areas[b]	14.5	14.7	14.6
Provinces around Metro Manila[c]	13.1	10.6	12.4
Rest of the country	20.2	19.7	20.1
Total	100.0	99.9	100.0
Number	2,077	1,480[d]	

a. Includes the provinces of Abra, Benguet, Ilocos Norte, Ilocos Sur, La Union, and Pangasinan.

b. Includes the provinces of Pampanga and Zambales.

c. Includes the provinces of Bataan, Batangas, Bulacan, Cavite, Laguna, and Rizal.

d. Excludes 51 cases "not living in Philippines" and 34 cases for whom data were missing.

tion experience among immigrants. As noted by Lind (1967), previous experience in urban living enhances immigrant adjustment and adaptation in the host society. Since most Filipino immigrants are destined to live in major urban centers in the United States, this point is pertinent to their successful adaptation. The high proportion of respondents coming from the Ilocos provinces continues a pattern that started with the recruitment of agricultural laborers from the region in the early 1900s. The early streams of Philippine migratory movements to the United States have provided the basis for strong chain migration among Ilocanos, a process enhanced by the family reunification provisions of U.S. immigration policy (Arnold et al. 1989; Caces 1986–87). The reason for the large number of immigrants from the provinces where the U.S. bases are located is that many U.S. military personnel meet their future spouses within the vicinity of the base facilities, and these spouses in turn become eligible to petition their relatives, starting new migration chains.

Educational Attainment

Educational attainment is probably the best single measure of human resources. Data from our surveys demonstrate the strong selectivity of the immigration process from the Philippines in terms of educational qualifications. Both the predeparture immigrants (Table 17) and the status adjusters (Table 18) had a much higher level of educational attainment than the Philippine population as a whole (Table 19). Differences between the two immigrant groups are also noteworthy. The mean number of years of education for the status adjusters was 12.5, substantially higher than the 10.9 years of education for the IPDA Survey respondents. For both IPDA and SAS samples, males had slightly higher levels of education than females, reflecting perhaps the favored positions of sons in Filipino families.

Variations can be also observed across immigrant visa groups (Table 20), with the occupational preference immigrants having educational qualifications superior to those of the other two groups. Despite their relative youth, the mean number of years of education of the occupational preference immigrants (for the combined IPDA and SAS samples) was 13.7 years, higher than the 12.2 years of the family preference immigrants and the 10.5 years of the immediate relatives of the U.S. citizens. Although these differences are meaningful, all visa groups were relatively well educated and family preference immigrants were not far below occupational preference immigrants in educational attainment.

Self-reported Skills and Language Ability

To further assess human resources, respondents in the IPDA survey were asked what skills they possessed that would be useful in the job market in the United States. As shown in Table 21, most new Filipino immigrants were able to mention two or more marketable skills. Among men, the

Table 17. Educational attainment of predeparture immigrants, by sex: IPDA, 1986

Level of education	Years of education	Males		Females		Both sexes	
		Number	%	Number	%	Number	%
None	0	2	0.3	10	1.0	12	0.7
Elementary school	1	0	0.0	11	1.1	11	0.6
	2	7	0.9	17	1.7	24	1.3
	3	11	1.4	29	2.8	40	2.2
	4	15	1.9	35	3.4	50	2.8
	5	8	1.0	30	2.9	38	2.1
	6	26	3.3	93	9.1	119	6.6
	1-6	67	8.6	215	21.0	282	15.6
High school	7	30	3.8	32	3.1	62	3.4
	8	27	3.5	35	3.4	62	3.4
	9	23	2.9	21	2.1	44	2.4
	10	164	21.0	156	15.2	320	17.7
	7-10	244	31.2	244	23.8	488	27.0
College or university	11	36	4.6	57	5.6	93	5.2
	12	100	12.8	110	10.7	210	11.6
	13	64	8.2	53	5.2	117	6.5
	14	160	20.5	264	25.8	424	23.5
	11-14	360	46.0	484	47.3	844	46.7
Graduate school (including medical university)	15	83	10.6	47	4.6	130	7.2
	16	8	1.0	13	1.3	21	1.2
	17	1	0.1	1	0.1	2	0.1
	18	8	1.0	2	0.2	10	0.6
	19	3	0.4	2	0.2	5	0.3
	20	3	0.4	2	0.2	5	0.3
	21	2	0.3	3	0.3	5	0.3
	22	0	0.0	1	0.1	1	0.1
	25	1	0.1	0	0.0	1	0.1
	15+	109	13.9	71	6.9	180	10.0
Total		782[a]	100.0	1,024[b]	100.0	1,806	100.0
Mean		11.5		10.4		10.9	
Median		12.4		11.8		12.1	

a. Excludes 112 cases for whom data were missing.

b. Excludes 159 cases for whom data were missing.

Table 18. Educational attainment of status adjusters, by sex: SAS, 1986

Level of education	Years of education	Males Number	Males %	Females Number	Females %	Both sexes Number	Both sexes %
None	0	1	0.3	2	0.2	3	0.2
Elementary school	1	0	0.0	2	0.2	2	0.1
	2	0	0.0	2	0.2	2	0.1
	3	0	0.0	6	0.5	6	0.4
	4	2	0.6	13	1.1	15	1.0
	5	3	0.9	14	1.2	17	1.1
	6	7	2.1	74	6.1	81	5.2
	1-6	12	3.6	111	9.2	123	8.0
High school	7	1	0.3	24	2.0	25	1.6
	8	7	2.1	32	2.7	39	2.5
	9	5	1.5	36	3.0	41	2.7
	10	28	8.3	120	9.9	148	9.6
	7-10	41	12.1	212	17.6	253	16.4
College or university	11	6	1.8	34	2.8	40	2.6
	12	33	9.8	120	9.9	153	9.9
	13	21	6.2	52	4.3	73	4.7
	14	96	28.4	336	27.8	432	27.9
	11-14	156	46.2	542	44.9	698	45.2
Graduate school	15+	128	37.9	341	28.2	469	30.3
Total[a]		338	100.1	1,208	100.1	1,546	100.1
Mean		13.2		12.3		12.5	
Median		14.6		14.2		14.3	

a. Excludes 19 cases for whom data were missing.

category of "driving/auto mechanic" encompassed the largest number of first responses to this open-ended question, with 18 percent of all mentions. Next were three categories that each had around 8 percent for men: secretarial skills (8.4 percent), electrician (8.0 percent), and farming/gardening (7.8 percent). The skill mentioned first by the largest number of women was secretarial (21 percent), with babysitting/nursemaid next (16 percent), and sewing/dressmaking in third place (10 percent).

The types of skills possessed varied widely by visa category (Table 22). Among occupational preference principal immigrants, 61 percent mentioned professional/technical skills. The proportion of the other two immigrant groups reporting professional/technical skills was low in comparison: 25

Table 19. Educational attainment of the population of the Philippines, ages 18 and over, by sex: 1980

Level of education[a]	Years of education	Males (%)	Females (%)	Both sexes (%)
No grades completed	0	8.4	10.7	9.6
Elementary	1-6	50.0	51.1	50.6
High school	7-10	24.5	20.3	22.4
College or more	11+	17.1	17.9	17.5
Total		100.0	100.0	100.1
Mean		6.4	6.2	6.3

Source: NCSO (1983, Vol. 2, Table 5).

a. Excludes cases for whom level of education was not stated.

percent for the family preference principal immigrants, and 15 percent for the immigrants in the exempt category. Both the superior occupational experience and the higher educational attainment of the occupational preference immigrants should place them at an advantage in adapting to life in the United States.

Facility with the English language is another important resource which influences the immigrants' success in adapting to their new environment. To gauge the respondents' facility in English they were asked to rate their ability on three aspects: reading, speaking, and writing. For each aspect, they were asked to indicate whether their ability was excellent, good, fair, or poor. The ratings were combined and transformed into a scale ranging from 1 (poor) to 10 (excellent); the results are shown in Table 23. The overall mean rating was just above the mid-point of the scale, between fair and good. Occupational preference immigrants had a higher English language ability score (7.1) than the immediate relatives of U.S. citizens (5.1). The average language ability score of family preference immigrants (5.9) was higher than that of immigrants in the exempt category but still substantially lower than that of the occupational preference immigrants.

Table 23 also shows two other measures that are related to socioeconomic status. The percentage of respondents earning more than 30,000 pesos per year (about U.S. $1,500) clearly differentiates the visa categories, with nearly 80 percent of occupational preference immigrants meeting that standard, compared with less than one-third of immigrants in other visa categories. In a similar vein, self-ratings of social class showed occupational preference immigrants to have the highest score (although among all visa groups a majority of immigrants rated themselves as middle class).

Table 20. Educational attainment of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and years of education	Immediate relatives		Family preference categories		Occupational preference categories		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)										
0–6	245	25.1	46	6.7	1	1.0	2	5.0	294	16.3
7–10	293	30.0	176	25.5	6	5.9	13	32.5	488	27.0
11+	438	44.9	467	67.8	94	93.1	25	62.5	1,024	56.7
Total	976[a]	100.0	689[b]	100.0	101[c]	100.0	40[d]	100.0	1,806	100.0
Mean	9.8		12.1		13.5		11.3		10.9	
Median	10.7		12.9		14.4		12.2		12.1	
Status adjusters (SAS)										
0–6	121	8.5	4	13.8	0	0.0	0	0.0	125	8.1
7–10	250	17.5	3	10.3	0	0.0	0	0.0	253	16.3
11+	1,054	74.0	22	75.9	84	100.0	11	100.0	1,171	73.6
Total	1,425	100.0	29	100.0	84	100.0	11	100.0	1,549[e]	100.0
Mean	12.4		12.4		14.6		14.6		12.5	
Median	14.2		14.9		15.3		15.4		14.3	
Weighted average of IPDA + SAS means	10.5		12.2		13.7		12.1		11.3	

a. Excludes 129 cases for whom data were missing.
b. Excludes 121 cases for whom data were missing.
c. Excludes 13 cases for whom data were missing.
d. Excludes eight cases for whom data were missing.
e. Excludes 16 cases for whom data were missing.

Table 21. Skills of predeparture immigrants that they considered helpful for obtaining jobs in the United States, by sex: IPDA, 1986

	Males		Females		Both sexes	
Skill	Number	%	Number	%	Number	%
Number of skills mentioned						
None	13	1.5	27	2.3	40	1.9
1	183	20.5	308	26.1	491	23.7
2	350	39.2	453	38.3	803	38.7
3	240	26.9	273	23.1	513	24.7
4	81	9.1	103	8.7	184	8.9
5	24	2.7	18	1.5	42	2.0
6	2	0.2	0	0.0	2	0.1
7+	1	0.1	0	0.0	1	0.1
Total	894	100.2	1,182[a]	100.0	2,076	100.1
Mean number mentioned	2.3		2.1		2.2	
Kind of skill mentioned first						
Secretarial skills	74	8.4	241	20.9	315	15.5
Babysitting/nursemaid	6	0.7	179	15.5	185	9.1
Driving/auto mechanics	161	18.3	7	0.6	168	8.3
Sewing/dressmaking	11	1.3	117	10.1	128	6.3
Midwifery/nursing	28	3.2	84	7.3	112	5.5
Housekeeping	5	0.6	84	7.3	89	4.4
Computer programming	38	4.3	47	4.1	85	4.2
Farming/gardening	69	7.8	16	1.4	85	4.2
Cooking/baking	15	1.7	62	5.4	77	3.8
Electrician	70	8.0	3	0.3	73	3.6
Teaching/preaching	10	1.1	61	5.3	71	3.5
Sales	27	3.1	42	3.6	69	3.4
Hair culture	4	0.5	64	5.5	68	3.3
Bookkeeping/accounting	26	3.0	34	2.9	60	3.0
Carpentry/construction	44	5.0	1	0.1	45	2.2
Waiter/bellboy	24	2.7	19	1.7	43	2.1
Engineering	32	3.6	7	0.6	39	1.9
Arts (drawing, designing)	30	3.4	6	0.5	36	1.8
Business management	18	2.0	15	1.3	33	1.6
Building caretaking	26	3.0	1	0.1	27	1.3
Laundry/dishwashing	7	0.8	18	1.6	25	1.2
Vegetable/fruit picking	9	1.0	10	0.9	19	0.9
Music/singing	11	1.3	6	0.5	17	0.8
Labor (general)	15	1.7	0	0.0	15	0.7
Clinical laboratory and related skills	6	0.7	6	0.5	12	0.6

Table 21. *(continued)*

Skill	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Welding (plating, etc.)	12	1.4	0	0.0	12	0.6
Repairs (appliance)	11	1.3	0	0.0	11	0.5
Telephone/radio operator	6	0.7	5	0.4	11	0.5
Law enforcement	10	1.1	0	0.0	10	0.5
Law practice	9	1.0	1	0.1	10	0.5
Machine operator	10	1.1	0	0.0	10	0.5
Factory work	5	0.6	4	0.4	9	0.4
Plumbing/pipefitting	8	0.9	1	0.1	9	0.4
Seamanship/nautical	8	0.9	0	0.0	8	0.4
House painting	7	0.8	0	0.0	7	0.3
Hotel maintenance	2	0.2	4	0.4	6	0.3
Technician (agricultural, etc.)	4	0.5	1	0.1	5	0.3
Jack-of-all trades	3	0.3	0	0.0	3	0.2
Languages	1	0.1	2	0.2	3	0.2
Research	2	0.2	1	0.1	3	0.2
Interior decorating	2	0.2	0	0.0	2	0.1
Tour guiding	1	0.1	1	0.1	2	0.1
Animal husbandry	1	0.1	0	0.0	1	0.1
Broadcasting/communication	0	0.0	1	0.1	1	0.1
Clergy	1	0.1	0	0.0	1	0.1
Handicraft	0	0.0	1	0.1	1	0.1
Photography	1	0.1	0	0.0	1	0.1
Social work	1	0.1	0	0.0	1	0.1
Sports	1	0.1	0	0.0	1	0.1
Supervisory skills	1	0.1	0	0.0	1	0.1
Writing	0	0.0	1	0.1	1	0.1
Other	8	0.9	2	0.2	10	0.5
Total number of first mentions	881	100.1	1,155	100.4	2,036	100.6

a. Excludes from the analysis one case for whom datum was missing.

Special Training

To ascertain special qualifications that might be useful in the U.S. labor market, the IPDA Survey asked about any training acquired beyond formal schooling and any licenses or certificates possessed. Over one-third of IPDA respondents (36 percent) had received additional training (Table 24). Training in data processing was popular among both males and females, about one-

Table 22. Self-reported skills of predeparture immigrants, by sex and immigrant visa category: IPDA, 1986

Immigrant visa category	Percentage professional/technical		
	Males	Females	Both sexes
Immediate relatives	17.8	14.0	15.3
Family preferences			
Total	23.3	26.6	24.8
Principal immigrant	23.1	28.2	25.3
Beneficiaries	23.9	22.9	23.4
Occupational preferences			
Total	31.9	55.2	45.6
Principal immigrant	55.6	63.4	61.0
Beneficiaries	17.2	42.3	29.1
All immigrants	21.5	20.4	20.8

Note: Table is based on the first skill mentioned by respondents. Those skills were classified into categories roughly comparable to standard occupation classification schemes.

Table 23. Selected socioeconomic characteristics of predeparture immigrants, by immigrant visa category: IPDA, 1986

Immigrant visa category	Mean language ability score	Percentage earning over ₱30,000 per year[a]	Mean social status rating
Immediate relatives[b]	5.1	26.9	5.3
Family preferences			
Total	5.9	30.0	5.4
Principal immigrant	5.9	29.1	5.4
Beneficiaries	5.8	33.3	5.4
Occupational preferences			
Total	7.1	79.2	5.9
Principal immigrant	7.5	78.8	5.8
Beneficiaries	6.7	80.0	5.9
All immigrants	5.5	32.7	5.4

a. Percentages based on those employed during 12 months before departure. Thirty thousand pesos are equal to approximately U.S. $1,500.

b. Immediate relatives category includes fiancé(e)s (K visa holders) and excludes special immigrants (SE and SD visa holders).

Table 24. Nonformal training of predeparture immigrants in the Philippines, by sex: IPDA, 1986

	Males		Females		Both sexes	
Training	Number	%	Number	%	Number	%
Whether had training						
Had training	329	36.8	408	34.5	737	35.5
Did not have training	565	63.2	775	65.5	1,340	64.5
Total	894	100.0	1,183	100.0	2,077	100.0
First-mentioned training, if received						
Clerical	32	9.8	134	32.8	166	22.6
Data processing	65	19.8	78	19.1	143	19.4
Dressmaking/tailoring/designing	13	4.0	96	23.5	109	14.8
Electrical	86	26.2	4	1.0	90	12.2
Mechanical	73	22.3	3	0.7	76	10.3
Beauty culture	1	0.3	56	13.7	57	7.7
Telephone operator	5	1.5	4	1.0	9	1.2
Medical	2	0.6	6	1.5	8	1.1
Seamanship/nautical	7	2.1	1	0.3	8	1.1
Drawing/drafting	6	1.8	1	0.3	7	1.0
Food processing	1	0.3	6	1.5	7	1.0
Arts training	3	0.9	2	0.5	5	0.7
CPA review/financial	1	0.3	4	1.0	5	0.7
Culinary arts	1	0.3	4	1.0	5	0.7
Carpentry	4	1.2	0	0.0	4	0.5
Driving	3	0.9	1	0.3	4	0.5
Crafts	2	0.6	1	0.3	3	0.4
Languages	2	0.6	1	0.3	3	0.4
Law enforcement	3	0.9	0	0.0	3	0.4
Logging	1	0.3	2	0.5	3	0.4
Management training	3	0.9	0	0.0	3	0.4
Radio operation	1	0.3	2	0.5	3	0.4
Other vocational	3	0.9	0	0.0	3	0.4
Engineering	2	0.6	0	0.0	2	0.3
Hotel maintenance	1	0.3	1	0.3	2	0.3
Metal work	2	0.6	0	0.0	2	0.3
Agricultural	1	0.3	0	0.0	1	0.1
Effective communication	0	0.0	1	0.3	1	0.1
Fisheries	1	0.3	0	0.0	1	0.1
Laboratory technician	1	0.3	0	0.0	1	0.1
Plumbing	1	0.3	0	0.0	1	0.1
Sales	1	0.3	0	0.0	1	0.1
Total	328[a]	99.8	408	100.4	736	99.8

[a] Excludes from the analysis one case for whom datum was missing.

fifth of each group having received such additional education. Gender differences are discernible for other subjects, however. For males, electrical training (26 percent) and mechanical training (22 percent) were prominent. Among females, one-third had received clerical training. Besides clerical work and data processing, popular fields of training for women were dressmaking (24 percent) and "beauty culture" (14 percent).

About one-fifth (22 percent) of the predeparture immigrants reported having obtained a work-related license or certificate (Table 25). Again, gender differences were prominent. Among men, the most common credential cited was a driver's license (29 percent). Other credentials mentioned by men included a license or certificate in engineering (15 percent), accounting (5.1 percent), and law (5.1 percent). Among women, a substantial proportion had a certificate in nursing (26 percent), followed by teaching (17 percent) and accounting (6.1 percent).

In general, our survey data on human resources show that demographic differences among the immigrant groups were matched by similar disparities along socioeconomic dimensions. Contrasts emerged between status adjusters and the predeparture immigrants, as well as between those who entered the United States through the family reunification provisions of the immigration law and those who came on the basis of occupational skills and qualifications. Overall, the human resources embodied by status adjusters were superior to the qualifications of the new arrivals. Among immigrant types, occupational preference immigrants were endowed with better qualifications and skills than family preference immigrants or the immediate relatives of U.S. citizens. At a more general level, the diversity of qualifications among this cohort of immigrants is noteworthy.

EMPLOYMENT PATTERNS AND EXPECTATIONS

To complement the information on skills and educational qualifications of the immigrants, we analyze in this section survey findings on employment status and experience, looking first at the work experience, and the kinds of jobs held by the immigrants prior to their departure from the Philippines. For status adjusters, we also examine current jobs and occupational status in the United States. Finally, we compare occupational distributions of the immigrant visa groups with those of the population at the origin.

During the 12 months prior to their departure for the United States, slightly fewer than one-half of the IPDA respondents were employed (Table 26). A major reason for the low level of economic activity was the high proportion of housewives, comprising 40 percent of female respondents and 24 percent of the entire IPDA sample. Students (14.4 percent) also accounted for a fairly substantial proportion of the sample, and this status was slightly more common among males than among females. A higher proportion of men than of women (8.2 percent as compared with 1.7 percent) were retired.

Table 25. License or certificate received by predeparture immigrants, by sex: IPDA, 1986

License or certificate	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Whether received						
Received	236	26.4	213	18.0	449	21.6
Not received	658	73.6	970	82.0	1,628	78.4
Total	894	100.0	1,183	100.0	2,077	100.0
First-mentioned license or certificate, if received						
Driver	69	29.2	6	2.8	75	16.7
Nurse	5	2.1	54	25.5	59	13.2
Engineer	36	15.3	5	2.4	41	9.2
Teaching	0	0.0	36	17.0	36	8.0
CPA/accountant	12	5.1	13	6.1	25	5.6
Physician	8	3.4	6	2.8	14	3.1
Lawyer	12	5.1	1	0.5	13	2.9
Dentist	8	3.4	3	1.4	11	2.5
Computer programmer	4	1.7	5	2.4	9	2.0
Mechanic	9	3.8	0	0.0	9	2.0
Merchant marine	8	3.4	0	0.0	8	1.8
Other medical/health	1	0.4	7	3.3	8	1.8
Dressmaking/tailoring	2	0.9	5	2.4	7	1.6
Electrical	7	3.0	0	0.0	7	1.6
Midwife	0	0.0	7	3.3	7	1.6
Pharmacist	0	0.0	7	3.3	7	1.6
Architect	4	1.7	2	0.9	6	1.3
Beautician	0	0.0	6	2.8	6	1.3
Building construction	5	2.1	0	0.0	5	1.1
Clerical	0	0.0	4	1.9	4	0.9
Hotel maintenance	2	0.9	2	0.9	4	0.9
Medical technologist	1	0.4	3	1.4	4	0.9
Realtor	1	0.4	3	1.4	4	0.9
Clergyman	3	1.3	0	0.0	3	0.7
Food technologist	1	0.4	2	0.9	3	0.7
Aeronautics	2	0.9	0	0.0	2	0.5
Entertainer	2	0.9	0	0.0	2	0.5
Plumbing	1	0.4	1	0.5	2	0.5
Social work	1	0.4	1	0.5	2	0.5
Telephone/radio operator	2	0.9	0	0.0	2	0.5
Culinary arts	0	0.0	1	0.5	1	0.2
Drawing/draftsman	1	0.4	0	0.0	1	0.2

Table 25. *(continued)*

License or certificate	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Economist	1	0.4	0	0.0	1	0.2
Geologist	0	0.0	1	0.5	1	0.2
Law enforcement	1	0.4	0	0.0	1	0.2
Lumber inspector	1	0.4	0	0.0	1	0.2
Metalworks	1	0.4	0	0.0	1	0.2
Optometrist	1	0.4	0	0.0	1	0.2
Psychologist	0	0.0	1	0.5	1	0.2
Tour guide	1	0.4	0	0.0	1	0.2
Other[a]	23	9.8	30	14.2	53	11.8
Total	236	100.1	212[b]	100.1	448	100.2
Second-mentioned license or certificate, if received						
Computer programmer	0	0.0	2	20.0	2	10.0
Dressmaking/tailoring	0	0.0	2	20.0	2	10.0
Driver	1	10.0	1	10.0	2	10.0
Mechanic	2	20.0	0	0.0	2	10.0
Beautician	0	0.0	1	10.0	1	5.0
Clergyman	1	10.0	0	0.0	1	5.0
Clerical	0	0.0	1	10.0	1	5.0
CPA/accountant	1	10.0	0	0.0	1	5.0
Electrical	1	10.0	0	0.0	1	5.0
Engineer	1	10.0	0	0.0	1	5.0
Food technologist	1	10.0	0	0.0	1	5.0
Hotel maintenance	1	10.0	0	0.0	1	5.0
Lawyer	1	10.0	0	0.0	1	5.0
Teaching	0	0.0	1	10.0	1	5.0
Other[c]	0	0.0	2	20.0	2	10.0
Total	10	100.0	10	100.0	20	100.0

[a] Includes "civil service" (three males and three females), "high school diploma" (four males and four females), and "college/post graduate" (16 males and 23 females).

[b] Excludes from the analysis one case for whom datum was missing.

[c] Includes "college/post graduate" (two females).

Despite employment constraints associated with some nonimmigrant visas, well over half of status adjusters (64 percent) were employed at the time they adjusted from nonimmigrant to immigrant status (Table 27). Employment was especially common (85 percent) for the male respondents. Housewives constituted a substantial proportion of female status adjusters

Table 26. Activity status of predeparture immigrants during 12 months before departure, by sex: IPDA, 1986

	Males		Females		Both sexes	
Status	Number	%	Number	%	Number	%
Employed	525	58.7	447	37.8	972	46.8
Not employed/looking for work	81	9.1	44	3.7	125	6.0
Student	145	16.3	153	12.9	298	14.4
Housekeeper	24	2.7	470	39.7	494	23.8
Retired	73	8.2	20	1.7	93	4.5
Vacationing	3	0.3	1	0.1	4	0.2
Other/don't know/no answer	43	4.8	48	4.1	91	4.4
Total	894	100.0	1,183	100.0	2,077	100.0

Table 27. Current activity status of status adjusters, by sex: SAS, 1986

	Males		Females		Both sexes	
Status	Number	%	Number	%	Number	%
Employed[a]	287	85.4	687	57.2	974	63.3
Not employed	29	8.6	168	14.0	197	12.8
Student	3	0.9	47	3.9	50	3.3
Housekeeping	2	0.6	277	23.0	279	18.1
Retired	10	3.0	16	1.3	26	1.7
Employed part time and student	5	1.5	7	0.6	12	0.8
Total[b]	336	100.0	1,202	100.0	1,538	100.0

a. Full time or part time.

b. Excludes from the analysis 27 cases for whom data were missing.

(23 percent). Only a small proportion (3.3 percent) were students at the time they adjusted to immigrant status.

Table 28 shows that among predeparture immigrants who were employed in the past twelve months, most worked in a private business (41 percent), a substantial proportion were self-employed (29 percent), and a fairly large contingent worked for the government (17 percent). The largest proportion (27 percent) held professional or technical jobs. Women were particularly likely to have been working in professional or technical fields (34 percent compared with 20 percent for men). Ranking second and third for men were farming and production work, respectively. For women, clerical work was second, followed by jobs in sales. Only 6.1 percent were clas-

Table 28. Type of employment and occupation of predeparture immigrants employed in last 12 months, by sex: IPDA, 1986

	Male		Female		Both sexes	
Employment/occupation	Number	%	Number	%	Number	%
Type of employment						
Self-employed	168	32.0	109	24.4	277	28.5
Working for the government	73	13.9	95	21.3	168	17.3
Working on a farm	64	12.2	7	1.6	71	7.3
Working in a company/business	182	34.7	214	47.9	396	40.7
Working for the U.S. government	22	4.2	9	2.0	31	3.2
Working in a U.S. company/business	2	0.4	2	0.5	4	0.4
Other	14	2.7	11	2.5	25	2.6
Total	525[a]	100.1	447	100.2	972	100.0
Occupation						
Professional/technical/related work	106	20.1	153	34.2	259	26.6
Administrative/executive/managerial work	51	9.7	31	6.9	82	8.4
Clerical work	37	7.0	83	18.6	120	12.3
Business proprietorship	28	5.3	31	6.9	59	6.1
Sales	48	9.1	56	12.5	104	10.7
Farming/fishing/hunting/mining	98	18.6	14	3.1	112	11.5
Transport/communication	46	8.7	3	0.7	49	5.0
Crafts/production/other labor n.e.c.	83	15.8	36	8.1	119	12.2
Service/sport/recreation	30	5.7	40	9.0	70	7.2
Total	527	100.0	447	100.0	974	100.0

n.e.c. = not elsewhere classified.

a. Excludes from the analysis two cases for whom data were missing.

sified as employed in a "business proprietorship," indicating that many of the 29 percent who said they were self-employed worked in the informal "buy and sell" sector, in crafts or production work, as farmers, or in other types of self-employment.

Some idea of the occupational mobility of immigrants can be obtained by comparing the occupations of status adjusters at two times: just before their departure for the United States in nonimmigrant status, and at the time of their adjustment from nonimmigrant to immigrant status. Among

Table 29. Work status and occupation of status adjusters just prior to their departure from the Philippines, by sex: SAS, 1986

Status/occupation	Males Number	Males %	Females Number	Females %	Both sexes Number	Both sexes %
Work status						
Working	290	86.6	917	76.5	1,207	78.7
Not working	45	13.4	281	23.5	326	21.3
Total[a]	335	100.0	1,198	100.0	1,533	100.0
Occupation						
Professional/technical	105	36.2	371	40.5	476	39.4
Administrative/managerial	44	15.2	84	9.2	128	10.6
Clerical	32	11.0	152	16.6	184	15.2
Sales	29	10.0	82	8.9	111	9.2
Farming/fishing/mining	8	2.8	4	0.4	12	1.0
Transport/communication	7	2.4	0	0.0	7	0.6
Crafts/production	31	10.7	29	3.2	60	5.0
Service	16	5.5	148	16.1	164	13.6
Other	18	6.2	47	5.1	65	5.4
Total	290	100.0	917	100.0	1,207	100.0

a. Excludes from the analysis 32 cases for whom data were missing.

those who were employed prior to departure, fully 40 percent were in professional and technical occupations (Table 29). On one hand, women were more likely than men to be professionals, as well as more likely to have clerical and service occupations. On the other, men were more likely than women to be administrators and managers, and to be engaged in crafts and production work.

A smaller proportion of status adjusters was engaged in professional and technical occupations at the time of adjustment from nonimmigrant to immigrant status than in the predeparture period, and this was true especially for the male respondents (Table 30 compared with Table 29). As was consistent with their occupational distribution prior to departure, women were more prominent in the professional, clerical, and service occupations in the United States, whereas men were more likely to be in managerial occupations or in crafts and production. Compared with their predeparture employment, status adjusters were more likely to be in clerical and service jobs in the United States. A general downward shift in occupational mobility is evident for this cohort.

The immigrants in our two surveys were more likely to be engaged in professional and technical occupations prior to departure than the Philippine population as a whole, reflecting the selectivity of immigration. For

Table 30. Work status and current occupation of status adjusters, by sex: SAS, 1986

Status/occupation	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Work status						
Currently working	292	86.9	694	57.7	986	64.1
Not currently working	44	13.1	508	42.3	552	35.9
Total[a]	336	100.0	1,202	100.0	1,538	100.0
Occupation						
Professional/technical	73	25.0	249	35.9	322	32.7
Administrative/managerial	25	8.6	38	5.5	63	6.4
Clerical	44	15.1	144	20.8	188	19.1
Business proprietorship	4	1.4	6	0.9	10	1.0
Sales	27	9.3	66	9.5	93	9.4
Farming/fishing/mining	4	1.4	2	0.3	6	0.6
Transport/communication	5	1.7	0	0.0	5	0.5
Crafts/production	56	19.2	42	6.1	98	9.9
Service	47	16.1	135	19.5	182	18.5
Other	7	2.4	12	1.7	19	1.9
Total	292	100.2	694	100.2	986	100.0

a. Excludes from the analysis 27 cases for whom data were missing.

the population at the origin, only 5.6 percent were engaged in professional and technical occupations (Table 31) as against a much higher 30 percent for the combined IPDA and SAS samples prior to departure (Table 32). This contrast is clear evidence of a "brain drain." Moreover, while 9.0 percent of the immigrants in the two surveys were administrators and managers, only 0.9 percent of the economically active population of the Philippines were in the same occupations. Another sharp contrast is that only 8.9 percent of the two immigrant groups were in farming and fishing occupations, as compared with 48 percent for the Philippine population as a whole.

Important differences among immigrant groups should also be noted. Compared with predeparture immigrants, status adjusters had a higher level of occupational experience prior to departure (Table 33). A greater proportion of status adjusters (39 percent) than of predeparture immigrants (27 percent) held professional and technical jobs. The same pattern of differentials is observable among immigrant visa categories. Precisely because they entered the United States on the basis of their job qualifications, occupational preference immigrants had higher status occupations than those who entered on the basis of the family reunification provisions of the immigra-

Table 31. Occupational distribution of the economically active population of the Philippines, ages 15 and above, by sex: 1985

	Males		Females		Both sexes	
Occupation	Number	%	Number	%	Number	%
Professional/technical/related work	412,000	3.2	759,000	9.6	1,171,000	5.6
Administrative/managerial	154,000	1.2	43,000	0.6	197,000	0.9
Clerical/related work	444,000	3.4	482,000	6.1	926,000	4.4
Sales	840,000	6.4	1,849,000	23.5	2,689,000	12.8
Service	724,000	5.5	1,070,000	13.6	1,794,000	8.6
Agriculture/animal husbandry/forestry/fishing/hunting	7,395,000	56.6	2,720,000	34.5	10,115,000	48.3
Production/related work/transport equipment operations/labor	3,092,000	23.7	954,000	12.1	4,046,000	19.3
Total[a]	13,061,000	100.0	7,877,000	100.0	20,938,000	99.9

Source: ILO (1987, Table 2B).

a. Excludes workers not classified by occupation (3,000).

tion law. Among the occupational preference predeparture immigrants, 58 percent were professionals, compared with 26 percent among family preference immigrants and 22 percent among immediate relatives. The disparities were even greater among status adjusters, with 83 percent of occupational preference immigrants in this group being professional and technical workers, as compared with 78 percent among family preference immigrants and 36 percent among immediate relatives. It is noteworthy too that within all visa category groups, higher percentages of women than of men were professional and technical workers. Once again, we see that the admission criteria under visa law have resulted in both intended and unintended selectivities in immigrant characteristics.

INCOME AND SOCIAL CLASS

To round out the picture of socioeconomic characteristics of immigrants, we examine in this section their reported income levels and perceived social class, once more drawing attention to the disparities among immigrant groups. We also discuss the immigrants' expectations of jobs, income, and life satisfaction in the United States.

Table 32. Occupation in the Philippines of predeparture immigrants and status adjusters, by immigrant visa category: IPDA and SAS, 1986

Sample and occupation[a]	Immediate relatives		Family preferences		Occupational preferences		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Predeparture immigrants (IPDA)										
Professional/technical/related work	91	21.6	116	25.5	45	58.4	7	33.3	259	26.6
Administrative/managerial	39	9.3	31	6.8	8	10.4	4	19.1	82	8.4
Clerical/related work	59	14.0	54	11.9	6	7.8	1	4.8	120	12.3
Business proprietorship	27	6.4	27	5.9	4	5.2	1	4.8	59	6.1
Sales	46	10.9	52	11.4	6	7.8	0	0.0	104	10.7
Farming/fishing/hunting/logging/mining	62	14.7	49	10.8	0	0.0	1	4.8	112	11.5
Transport/communication	17	4.0	27	5.9	2	2.6	3	14.3	49	5.0
Crafts/production process work/other labor n.e.c.	48	11.4	68	15.0	2	2.6	1	4.8	119	12.2
Service/sport/recreation	32	7.6	31	6.8	4	5.2	3	14.3	70	7.2
Total	421	99.9	455	100.0	77	100.0	21	100.2	974	100.0
Status adjusters (SAS)										
Professional/technical/related work	392	35.4	14	77.8	64	83.1	7	77.8	477	39.4
Administrative/managerial	122	11.0	1	5.6	5	6.5	0	0.0	128	10.6
Clerical/related work	177	16.0	2	11.1	5	6.5	0	0.0	184	15.2
Business proprietorship	42	3.8	0	0.0	2	2.6	1	11.1	45	3.7
Sales	111	10.0	1	5.6	0	0.0	0	0.0	112	9.3

Farming/fishing/hunting/logging/mining	12	1.1	0	0.0	0	0.0	0	0.0	12	1.0
Transport/communication	6	0.5	0	0.0	1	1.3	0	0.0	7	0.6
Crafts/production process work/other labor n.e.c.	61	5.5	0	0.0	0	0.0	0	0.0	61	5.0
Service/sport/recreation	164	14.8	0	0.0	0	0.0	0	0.0	164	13.6
Other	19	1.7	0	0.0	0	0.0	1	11.1	20	1.7
Total[b]	1,106	99.8	18	100.1	77	100.0	9	100.0	1,210	100.1
IPDA and SAS (weighted)										
Professional/technical/related work		25.0		38.5		64.6		44.4		29.8
Administrative/managerial		9.7		6.5		9.4		14.3		9.0
Clerical/related work		14.5		11.7		7.5		3.6		13.0
Business proprietorship		5.8		4.4		4.6		6.4		5.5
Sales		10.7		10.0		5.9		0.0		10.4
Farming/fishing/hunting/logging/mining		11.3		8.1		0.0		3.6		8.9
Transport/communication		3.1		4.4		2.3		10.7		3.9
Crafts/production process work/other labor n.e.c.		9.9		11.3		2.0		3.6		10.4
Service/sport/recreation		9.4		5.1		3.9		10.7		8.8
Other		0.4		0.0		0.0		2.8		0.4
Total		99.8		100.0		100.2		100.1		100.1

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n.e.c. = not elsewhere classified.

a. For IPDA respondents, occupation during 12 months before departure; for SAS respondents, occupation in last job held before coming to the United States.

b. Excludes from the analysis 29 cases for whom data were missing.

Table 33. Percentage holding professional or technical jobs in the Philippines, by sex and immigrant visa category: IPDA and SAS, 1986

	Predeparture immigrants (IPDA)			Status adjusters (SAS)[a]			IPDA and SAS (weighted)		
Immigrant visa category	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Immediate relatives[b]	16.8	26.2	21.6	32.3	36.5	35.5	20.6	28.8	25.1
Family preferences									
Total	19.4	35.0	25.5	50.0	85.7	77.8	27.0	47.7	38.5
Principal immigrant	18.6	34.0	24.7						
Beneficiaries	22.2	38.9	28.3						
Occupational preferences									
Total	45.2	67.4	58.4	75.0	85.3	83.1	52.9	71.9	64.7
Principal immigrant	62.5	69.4	67.3						
Beneficiaries	26.7	60.0	40.0						
All immigrants[c]	19.9	34.0	26.6	35.0	40.5	39.2	23.7	35.6	29.6

Note: For IPDA respondents, data refer to occupation during 12 months before departure; for SAS respondents, to last job held before leaving the Philippines.

a. The distinction between principal (primary) and beneficiary (derivative) visa status is not available from the data collected in the Status Adjusters Survey. Excludes 32 cases for whom data are missing.

b. Includes parents, spouse, and minor children of U.S. citizens.

c. Excludes special immigrants (SE and SD visa holders).

Income

As with occupations and educational attainment, the survey findings reveal that the immigration process exerts a selective influence on income. Table 34 shows the income levels of the IPDA respondents during the 12 months prior to their interview, with comparative medians for the popula-

Table 34. Income of employed predeparture immigrants during 12 months before departure, by sex: IPDA, 1986

Income during past 12 months (pesos[a])	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
0 (unpaid family worker)	27	5.2	19	4.3	46	4.8
0 (no income)	10	1.9	2	0.5	12	1.3
Subtotal (no income)	37	7.1	21	4.8	58	6.0
₱1–999	2	0.4	14	3.2	16	1.7
₱1,000–1,999	14	2.7	6	1.4	20	2.1
₱2,000–2,999	11	2.1	10	2.3	21	2.2
₱3,000–3,999	8	1.5	8	1.8	16	1.7
₱4,000–4,999	9	1.7	14	3.2	23	2.4
Subtotal (₱1–4,999)	44	8.5	52	11.8	96	10.0
₱5,000–5,999	13	2.5	8	1.8	21	2.2
₱6,000–7,999	22	4.2	20	4.6	42	4.4
₱8,000–9,999	27	5.2	21	4.8	48	5.0
Subtotal (₱5,000–9,999)	62	11.9	49	11.1	111	11.6
₱10,000–14,999	71	13.7	70	15.9	141	14.7
₱15,000–19,999	52	10.0	69	15.7	121	12.6
₱20,000–29,999	62	11.9	52	11.8	114	11.9
₱30,000+	192	36.9	127	28.9	319	33.2
Subtotal (₱10,000+)	377	72.5	318	72.3	695	72.4
Total	520	100.0	440	100.0	960[b]	100.0
IPDA median income (pesos)	19,400		17,000		18,000	
Philippine median income[c] (pesos)	—		—		6,750	
IPDA median income converted to U.S. dollars	$970.00		$850.00		$900.00	
Philippine median income converted to U.S. dollars	—		—		$337.50	

a. ₱20 = U.S. $1.

b. Excludes from the analysis seven cases for whom data were missing.

c. Median figures are for 1975. Classification by sex not available. Source: NEDA (1982, Table 2.15).

tion of the Philippines. The median income for the predeparture immigrants was ₱18,000 per year (equivalent to about U.S. $900) as compared with ₱6,750 per year (equivalent to about U.S. $337) for the Philippine population. Among the IPDA respondents, the income level of males (U.S. $970 per year) was markedly higher than that of females (U.S. $850 per year). Gender differentials can also be seen in the fact that only 29 percent of females were earning ₱30,000 or more (equivalent to U.S. $1,500) per year as compared with 37 percent of male respondents.

SAS respondents who were working in the United States at the time of status adjustment had median incomes of $1,100 *per month* (Table 35). Males had higher levels of income (median of $1,191 per month) than females (median of $1,050 per month). Status adjusters were thus earning more in one month than predeparture immigrants earned in a year, attesting to the economic attraction of the United States as an immigrant desti-

Table 35. Current monthly income of employed status adjusters, by sex: SAS, 1986

Monthly income (U.S. dollars)	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
No income	5	1.8	12	1.8	17	1.8
$1-99	2	0.7	10	1.5	12	1.2
$100-199	4	1.4	35	5.2	39	4.0
$200-299	3	1.1	22	3.2	25	2.6
$300-399	12	4.2	32	4.7	44	4.6
$400-499	12	4.2	34	5.0	46	4.8
Subtotal ($1-499)	33	11.7	133	19.6	166	17.3
$500-599	15	5.3	47	6.9	62	6.4
$600-699	12	4.2	34	5.0	46	4.8
$700-799	14	5.0	25	3.7	39	4.0
$800-899	14	5.0	45	6.6	59	6.1
$900-999	23	8.1	41	6.0	64	6.6
Subtotal ($500-999)	78	27.6	192	28.3	270	28.1
$1,000-1,499	80	28.3	146	21.5	226	23.5
$1,500-2,499	59	20.8	137	20.2	196	20.4
$2,500+	28	9.9	59	8.7	87	9.0
Subtotal ($1,000+)	167	59.0	342	50.4	509	52.9
Total	283	100.1	679	100.1	962[a]	100.1
SAS median income[b]	$1,191		$1,050		$1,100	

a. Excludes from the analysis 24 cases for whom data are missing.

b. Excludes "no income" category.

nation but not taking into account cost of living differences in the two countries.

Social Class and Levels of Living

The percentage distribution for self-ratings of social class are presented in Table 36 for the predeparture immigrants. By far the majority perceived themselves to be within the middle-class range, and most of those in the "middle middle" class. Only a few rated themselves as lower-class (4.2 percent), and a somewhat larger proportion (7.8 percent) classified themselves as upper-class. Men and women gave themselves quite similar ratings.

Predeparture immigrants provided information on an array of topics related to levels of living and life satisfaction, which we classified by visa category (Table 37). They expected to work only slightly longer hours in the United States (43.5 hours per week on the average) than in the Philippines (average of 41.4 hours per week). Their median income in the Philippines was ₱345, or U.S. $17, per week, which they expected to increase enormously with their first jobs in the United States. The immigrants also expected continuing upward mobility, forecasting their incomes to more than double after five years in the United States. (It should be noted, however, that large numbers of respondents said they did not know the answer to questions about future income in the United States.) Interestingly, the fifth preference immigrants (siblings) had five-year income expectations exceeding those of occupational preference immigrants, despite starting at a lower base. Otherwise, expected income differences by visa group were not great.

A scaling technique was used in the IPDA Survey to obtain ratings of various dimensions of life satisfaction on a scale from 0 to 10. A picture of a ladder illustrated the steps from 0, the "worst possible condition," to 10, the "best possible condition." The ratings reported in Table 37 refer to

Table 36. Self-rated social class of predeparture immigrants, by sex: IPDA, 1986

	Males		Females		Both sexes	
Social class	Number	%	Number	%	Number	%
Upper	66	7.4	96	8.1	162	7.8
Upper middle	258	28.9	381	32.2	639	30.8
Middle middle	405	45.3	517	43.7	922	44.4
Lower middle	123	13.8	143	12.1	266	12.8
Lower	41	4.6	46	3.9	87	4.2
No answer	1	0.1	0	0.0	1	0.1
Total	894	100.1	1,183	100.0	2,077	100.1

Table 37. Expected working hours, income, and life satisfaction, by immigrant visa category: predeparture immigrants (IPDA), 1986

Immigrant visa category[a]	Average working hours per week in Philippines[b]	Expected working hours per week in U.S.[c]	Median income per week in Philippines[d] (U.S.$)	Median expected income per week in U.S.[e] (U.S.$)	Median expected income per week after 5 years[f] (U.S.$)	Life satisfaction		
						In Philippines	After 2 years in U.S.	After 5 years in U.S.
Immediate relatives[g]	42.3	41.9	15	436	921	5.7	7.1	8.0
Family preferences								
Total	40.4	45.0	17	474	1,066	5.4	7.2	8.1
Principal immigrant	39.7	45.5	17	537	919	5.4	7.2	8.1
Beneficiaries	42.8	43.6	18	309	1,711	5.5	7.1	8.1
First, second, and fourth preferences								
Total	39.8	45.5	16	501	962	5.3	7.2	8.1
Principal immigrant	39.3	45.7	16	536	938	5.3	7.2	8.1
Beneficiaries	44.6	44.4	11	269	1,505	5.3	7.2	8.3
Fifth preference								
Total	41.6	43.9	21	418	1,323	5.6	7.1	8.1
Principal immigrant	41.3	44.9	21	546	827	5.7	7.1	8.1
Beneficiaries	42.0	43.3	21	328	1,753	5.5	7.0	8.0

Occupational preferences								
Total	42.3	43.4	32	671	1,064	5.8	7.3	8.3
Principal immigrant	43.7	45.4	32	747	898	5.6	7.6	8.4
Beneficiaries	39.5	39.9	32	442	1,361	6.1	6.8	8.2
All immigrant types	41.4	43.5	17	483	1,019	5.6	7.1	8.1

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a. Excludes special immigrants (SE and SD visa holders).

b. Includes only employed persons. Fifteen cases for whom data were missing are excluded from the analysis.

c. Excludes respondents who did not expect to work in the United States, 512 respondents who said "don't know," and 14 other cases for whom data were coded as missing.

d. Includes "unpaid family workers" and employed persons who reported no monetary income. Calculation is based on reported income in 12 months before departure, divided by 52 weeks. (Number of weeks worked was not determined.) Six cases for whom data were missing are excluded from the analysis.

e. Excludes respondents who did not expect to work in the United States, 1,163 respondents who said "don't know," and 31 other cases for whom data were coded as missing.

f. Excludes respondents who did not expect to be working five years after arrival, 974 respondents who said "don't know," and six other cases for whom data were coded as missing.

g. Includes fiancé(e)s (K visa holders).

results of the scale indicating how satisfied predeparture immigrants were with their lives in the Philippines and the level of life satisfaction they expected to have after two years and after five years in the United States.

The average rating for life satisfaction in the Philippines (5.6) was on the favorable half of the scale (above 5.0). But the expected level of satisfaction with life in the United States was much higher (7.1 on the average after two years and 8.1 after five years). These findings suggest that Filipino immigrants expected fairly immediate gratification in the immigration process. Differences among immigrant visa groups were surprisingly small. In accordance with their observed levels of skills and qualifications, however, expectations were highest among the occupational preference immigrants and lowest among the immediate relatives. Family preference immigrants, as usual, occupied an intermediate position.

The survey data we have examined thus far clearly delineate distinct subgroups among Filipino immigrants to the United States. At one level, status adjusters tended to be more female-dominant, generally younger but more likely to be married, and more likely to come from higher socioeconomic origins than the predeparture immigrants. Substantial contrasts can also be observed among immigrant visa categories. At one extreme were the occupational preference immigrants, who were predominantly female and in their prime working ages, more professional in background, and characterized by higher levels of educational attainment, income, and social class. At the other extreme were the immigrants exempt from numerical limitations—the immediate relatives of U.S. citizens—who were generally older, much less professional in occupational background, and characterized by lower levels of educational attainment, income, and social class. The family preference immigrants were somewhere between the other two groups, although in their socioeconomic characteristices they more closely resembled the immediate relatives of U.S. citizens than the occupational preference immigrants. Among such dimensions as occupational skills, social class, and income, the family preference immigrants were slightly better off than the immigrants in the exempt categories, but generally worse off than the occupational preference immigrants.

The diversity of the immigrant groups is produced by the composition of nonimmigrant admissions, by the preference system that governs immigrant admissions, and by the numerical limitations that define the magnitude of the various visa categories. These policy issues interact with historical, cultural, and economic characteristics of earlier Filipino immigration. The observed diversity within this immigrant cohort presents a puzzle for U.S. immigration policy. Although the United States may be bringing in some of the targeted skills needed in its economy through the occupational preference categories, the larger immigrant groups who enter through the family reunification provisions of the immigration law bring with them a wider variety of skills, ranging from professional to unskilled labor. What are the implications of this diversity of skills and other dimensions of human resources? Further light is shed on this issue as we examine resource flows and the immigration processes in both the country of origin and the country of destination.

RESOURCE FLOWS

The Brain Drain

Filipino immigration to the United States, as shown in this study, clearly favors the well-trained and the skilled. Data from other sources indicate that Philippine professionals have responded vigorously to the changes in U.S. immigration policy. Over the five-year period from 1966 to 1970, more than 4,300 Filipino engineers and scientists, including social scientists, and some 3,000 physicians and surgeons emigrated to the United States (UNESCO 1972). During the immediate preamendment period, 1962–65, only 349 physicians and surgeons and 180 scientists and engineers had been admitted to the United States. In a more recent period, from 1976 to 1978, some 2,600 Filipino engineers and scientists emigrated to the United States (National Science Foundation 1980; Pernia 1976; Cariño 1987).

Many argue that the departure of professionals constitutes a loss of valuable resources to the sending country. Some studies have estimated how much has been "lost" through educational investment in emigrants (Koo and Yu 1981; Minocha 1987). Other studies, however, have argued that the "brain drain" problem stems mainly from the inability of the Philippine economy to absorb the continuous supply of certain high-level skills (Pernia 1976). In other words, the problem can be conversely viewed as a case in which the supply of professionals has obviously outpaced the economy's absorptive capacity. It is in this context that the "brain drain" issue has become less controversial, or at least less heated, in recent years. Nevertheless, the overall effect of emigration on the development of the sending countries remains uncertain (Fawcett, Cariño, and Arnold 1985). With respect to immigration policy, it is noteworthy that the percentage of immigrants in our combined IPDA and SAS samples classified as professional and technical (30 percent) was much higher than the total percentage admitted under occupational preferences (5.5 percent). Thus, the great majority of highly skilled immigrants are entering the United States under family reunification provisions, a fact that tends to be ignored in policy debates.

Remittance Flows

Another issue of policy concern is the flow of money from one country to another in the form of remittances. Most studies have focused on remittance flows from the receiving society to the country of origin. Such repatriated earnings have often been viewed as a process that may offset the harmful effects of the brain drain. However, there may also be a counterflow of remittances from the sending country to the host society. The IPDA Survey asked questions about resource flows in both directions—not only about money received prior to departure, but also about money sent to the United States and money the immigrants would take with them. Of particular interest to us was the amount of resources the immigrants would bring with them to start a business or to get settled while looking for a job.

The distribution of remittance flows to the United States prior to departure is shown in Table 38. A very small number of the predeparture immigrants (20 or 1.0 percent of the total sample) indicated they had already sent money to the United States. Thirteen of those had remitted less than $10,000 and seven had sent more than that amount, with one person reporting that he had sent more than $100,000. As the respondents were leaving soon for the United States, only five expected to send money to the United States between the time of the interview and departure (Table 39). Three

Table 38. Amount of money sent to the United States prior to the interview, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Amount (U.S. dollars)	Number	%	Number	%	Number	%
None	879	98.3	1,172	99.1	2,051	98.8
<$10,000	7	0.8	6	0.5	13	0.6
$10,000-99,999	4	0.5	2	0.2	6	0.3
$100,000+	1	0.1	0	0.0	1	0.1
Don't know	3	0.3	3	0.3	6	0.3
Total	894	100.0	1,183	100.1	2,077	100.1

Table 39. Amount of money expecting to send to the United States between interview time and departure, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Amount (U.S. dollars)	Number	%	Number	%	Number	%
None	889	99.4	1,181	99.8	2,070	99.7
<$10,000	2	0.2	1	0.1	3	0.1
$10,000-19,999	0	0.0	0	0.0	0	0.0
$20,000-29,999	2	0.2	0	0.0	2	0.1
Don't know	1	0.1	1	0.1	2	0.1
Total	894	99.9	1,183	100.0	2,077	100.0

of those five expected to send less than $10,000, while the other two expected to send between $20,000 and $30,000.

The amounts of money that respondents expected to take with them when they traveled to the United States are shown in Table 40. Almost three out of every 10 respondents (28 percent) expected to take less than $100 with them, apparently intending to rely on the auspices of relatives already in the United States. One-third expected to bring at least $100 but less than $1,000, whereas 14 percent were planning to take between $1,000 and $9,999. Twenty-nine of the respondents expected to take at least $10,000 (but less than $50,000); eight indicated they would bring with them $50,000 or more. As the median amount reported by IPDA respondents was only $180, most appeared to be starting their new lives with little money. It should be noted, however, that Philippine government regulations restricting the export of funds probably biased the answers to these questions.

Table 41 shows the amounts received from relatives in the United States before departure among those who had received such funds. The average remittance received by the respondents to help with travel was $3,465; the median was $609. More than 70 percent of the immigrants had received funds from the United States to assist their migration. It appears that the net remittance flow around the time of migration is probably toward the Philippines, but our data are not really adequate to provide a valid picture of this process. And in the baseline predeparture survey it was not possible to measure the amount of money that immigrants would send back to the Philippines in the years following their arrival in the United States. That topic will be covered in future longitudinal surveys, along with analyses of other kinds of inter-country linkages in the migration system.

Table 40. Amount of money expecting to take to the United States, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Amount (U.S. dollars)	Number	%	Number	%	Number	%
None or <$100	209	23.4	369	31.2	578	27.8
$100–999	283	31.7	393	33.2	676	32.6
$1,000–9,999	158	17.7	141	11.9	299	14.4
$10,000–49,999	15	1.7	14	1.2	29	1.4
$50,000+	8	0.9	0	0.0	8	0.4
Don't know	217	24.3	261	22.1	478	23.0
No answer	4	0.4	5	0.4	9	0.4
Total	894	100.1	1,183	100.0	2,077	100.0
Mean[a]	$3,051		$791		$1,748	
Median[a]	$240		$153		$180	

a. Excludes "don't know" and "no answer" responses.

Table 41. Amount of remittances received for travel costs by predeparture immigrants, by immigrant visa category: IPDA, 1986

Immigrant visa category[a]	Average amount (U.S. dollars)
Immediate relatives[b]	$2,502
Family preferences	
Total	4,945
Principal immigrant	5,220
Beneficiaries	4,092
First, second, fourth preferences	
Total	5,154
Principal immigrant	5,186
Beneficiaries	4,922
Fifth preference	
Total	4,304
Principal immigrant	5,458
Beneficiaries	3,585
Occupational preferences	
Total	3,133
Principal immigrant	5,361
Beneficiaries	2,131
Mean[c]	$3,465
Median[c]	$ 609
% of sample receiving remittances[d]	71.4

a. Excludes SE and SD visa holders.

b. Includes fiancé(e)s.

c. Calculation based on ungrouped data.

d. Excludes "don't know" and "no answer" responses and respondents who did not receive any remittances before departure.

IMMIGRATION PROCESSES

We examine in this section various processes and factors in both the areas of origin and destination as indicated by the migration systems paradigm that guides the study (cf. Fawcett and Arnold 1987: Fig. 19.1). At the origin, we focus attention on such factors as influences on migration decisions, the main motivations for migration, problems encountered in the visa application process, and departure arrangements. At the destination, emphasis is on the intended residence of the immigrants, their perceptions of the United States as a place to live, job and income expectations, and general problems of adjustment and adaptation. The important role played by family networks in the processes in both the areas of destination and of origin are also examined.

Motivations and Decision Influences

The decision to immigrate is obviously a highly complex process involving many factors and circumstances. Table 42 shows the importance of family networks in the respondents' motivational process. Fully 62 percent of the IPDA respondents gave affiliation-related reasons (to join spouse, to be with other members of the family, etc.) as their first reason for immigrating. Women were more prone to give affiliative reasons than men. This pattern substantiates the results of an earlier study revealing that family networks have a primary influence on Filipino intentions to move to Hawaii (De Jong et al. 1983). It is also consistent with the fact that most Filipino immigrants enter the United States under the family reunification provisions of immigration law.

Given the high proportion of respondents with labor force potential, the economic motive is also understandably salient: work-related and other

Table 42. Reasons for leaving the Philippines and immigrating to the United States, by sex: predeparture immigrants (IPDA), 1986

Reason	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
First reason mentioned						
Family primary affiliation	332	37.1	536	45.3	868	41.8
Other affiliation reasons	122	13.7	298	25.2	420	20.2
Work/livelihood/income	335	37.5	262	22.2	597	28.7
Autonomy/stimulation	69	7.7	55	4.7	124	6.0
Education	23	2.6	16	1.4	39	1.9
Environmental factors	4	0.5	5	0.4	9	0.4
Other	9	1.0	11	0.9	20	1.0
Total	894	100.1	1,183	100.1	2,077	100.0
Second reason mentioned						
No second reason stated	192	21.5	373	31.5	565	27.2
Work/livelihood/income	365	40.8	377	31.9	742	35.7
Autonomy/stimulation	95	10.6	142	12.0	237	11.4
Family primary affiliation	108	12.1	125	10.6	233	11.2
Other affiliation reasons	66	7.4	101	8.5	167	8.0
Education	38	4.3	44	3.7	82	4.0
Environmental factors	11	1.2	8	0.7	19	0.9
Other	19	2.1	13	1.1	32	1.5
Total	894	100.0	1,183	100.0	2,077	99.9

Table 43. Reasons for immigrating to the United States, by sex: status adjusters (SAS), 1986

Reason	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
To get married	64	19.5	453	38.0	517	34.0
To join family	51	15.5	172	14.4	223	14.7
Better opportunities for children	33	10.0	88	7.4	121	8.0
Better job	29	8.8	80	6.7	109	7.2
To receive proper reward for hard work	36	10.9	70	5.9	106	7.0
Higher income	16	4.9	79	6.6	95	6.3
To pursue own education	18	5.5	46	3.9	64	4.2
Political freedom	7	2.1	4	0.3	11	0.7
Other	19	5.8	52	4.4	71	4.7
Combination of reasons	56	17.0	148	12.4	204	13.4
Total[a]	329	100.0	1,192	100.0	1,521	100.2

a. Excludes from the analysis 44 cases for whom data were missing.

economic reasons were first-mentioned by 29 percent of the IPDA respondents and were notably prominent (36 percent) among those who also gave a second reason for immigrating. Overall, men were more likely than women to give job-related reasons for moving. Factors related to autonomy and stimulation (e.g., to live independently, to see places) and education-related reasons were cited first by a small minority of the new immigrants.

The status adjusters were motivated by a similar pattern of reasons for immigrating as indicated by their responses to a structured question containing eight specified reasons (Table 43). "To get married" came first in frequency of response, followed by "to join other family members." Motivations related to work would rank above joining family members if three items were combined (higher income, better job, reward for hard work). Having better opportunities for children was also a prominent motivation.

The role played by family networks also shows up in the results of a question about the extent to which the immigrant's migration decision was influenced by others. Among all IPDA respondents, 11 percent indicated that their move was based entirely or mostly on the decision of others (Table 44). Age was a factor, the influence of others being most prominent among the respondents in the youngest and oldest age brackets. Women were also more likely than men to indicate that their decision was influenced by others. But 38 percent of Filipino immigrants said that they had made the decision entirely on their own, including 46 percent of men and 32 percent of women (data not shown).

Table 44. Prevalence of others' influence on the decision to move, by age and sex: predeparture immigrants (IPDA), 1986

Age group	Percentage whose decision to move was entirely or mostly influenced by others: Males	Females	Both sexes
<20	14.8	11.8	13.3
20–29	7.0	12.8	10.6
30–39	4.9	8.0	6.6
40–49	4.2	11.6	8.1
50–59	6.7	16.4	12.2
60–69	18.2	20.4	19.4
All ages	8.4	12.9	11.0

Visa and immigration

Applying for an immigrant visa can be a long and tedious process; it involves a great deal of paperwork and, for some applicants, constant follow-up and many representations to government and U.S. Embassy officials. When asked whether they had encountered any difficulty in coping with these problems, however, a large majority (86 percent) of the IPDA respondents indicated that they had not (data not shown). Among those who did have difficulty, the most common problems they cited were the paperwork related to the visa application and the long wait associated with the petitioning process.

Partly because many of the respondents did not perceive any difficulty with the visa application process, only a few of them made suggestions for improving the visa and immigration procedures. On the part of the Philippine government, the respondents called for measures to stop bribery (a practice common in the Philippines to expedite the issuance of travel documents). They also expressed a need for the Department of Foreign Affairs to be better organized in processing passport applications. With respect to the U.S. Embassy, the respondents asked for measures to reduce the long waiting time required for the issuance of visas. They suggested, for example, that the visa section of the embassy be expanded and visas be issued by consulates outside Manila. Quite a few also suggested that embassy officials be more polite in dealing with visa applicants.

Perceptions of the United States as a place to live

A high proportion of the IPDA survey respondents did not appear to have detailed information about the United States. When asked about how clear an idea they had of the United States as a place to live, only 52 percent

Table 45. Prevalence of clear perceptions of the United States as a place to live, by years of education and sex: predeparture immigrants (IPDA), 1986

	Percentage with "very clear" perceptions		
Years of education	Males	Females	Both sexes
≤3	45.0	20.9	26.4
4–6	36.7	35.4	35.7
7–9	47.5	44.3	45.8
10–12	51.3	47.1	49.1
13–15	61.4	62.1	61.8
16+	73.1	75.0	74.0
Total[a]	54.5	49.3	51.6

[a] Excludes from the analysis 272 cases for whom data were missing.

indicated that they had a very clear picture (Table 45). Those with more education were more likely to have a clear perception. Lack of information about the United States may be attributed in part to the fact that only a small proportion (8.1 percent) of IPDA respondents had previously visited the United States (Table 46).

Place Comparisons

A broad view of the respondents' reasons for migration and their expectations in the host society may be gleaned from their comparisons of the Philippines and the United States along certain dimensions. Shown a list of 11 place characteristics (those rank-ordered in Table 47), IPDA respondents were asked to compare the Philippines and the United States on each dimension, using the ladder technique (steps 0 to 10 representing the worst to the best possible condition).

As shown in the bottom row of Table 47, respondents rated the United States higher overall than the Philippines, by a margin of almost two points. Of the 11 characteristics, they rated the Philippines higher in only two: friendliness of people and moral climate. In accordance with the prominence of economic reasons for immigrating, they perceived the United States as a much better place for wages, economic opportunities, standard of living, and reward for work and ability. Noneconomic dimensions on which they gave the United States a higher rating include social status opportunities, educational opportunities, political conditions, freedom from crime, and the variety of enjoyable things to do (see also Gardner, Cariño, and Arnold 1981).

Despite the relatively small number of IPDA respondents with clear ideas about the United States as a place to live, all but three had definite places of intended residence in the United States. Most were headed to

Table 46. Previous experience in the United States, by sex: predeparture immigrants (IPDA), 1986

Experience	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Stayed in the U.S. one year or more	26	2.9	52	4.4	78	3.8
Stayed in the U.S. less than one year	51	5.7	38	3.2	89	4.3
Never visited the U.S.	817	91.4	1,092	92.4	1,909	92.0
Total	894	100.0	1,182[a]	100.0	2,076	100.1

a. Excludes from the analysis one case for whom datum was missing.

Table 47. Place comparisons of the United States and the Philippines: predeparture immigrants (IPDA), 1986

Characteristic[a]	U.S.	Philippines	Difference
Wage level	7.69	3.95	+3.74
Economic opportunities	8.66	5.23	+3.43
Standard of living	8.36	5.11	+3.25
Rewarding work and ability	8.30	5.61	+2.69
Political conditions	7.62	5.01	+2.61
Social status opportunities	8.16	5.62	+2.54
Variety of enjoyable things to do	8.07	6.33	+1.74
Freedom from crime	6.71	5.37	+1.34
Educational opportunities	7.43	6.78	+0.65
Moral climate	6.42	7.04	-0.62
Friendliness of people	6.57	8.11	-1.54
Overall rating	7.64	5.83	+1.81

a. Respondents rated characteristics from 0 (representing the worst possible condition) to 10 (representing the best possible condition).

places of high Filipino concentrations (Table 48). About half intended to live upon arrival in California, which already houses the largest Filipino-American community in the country. The second most frequently cited destination for predeparture immigrants was the state of Hawaii, where 11 percent of the immigrants intended to reside initially. Smaller numbers were headed toward Illinois (4.4 percent), New York (3.8 percent) and other states. The distribution of the current places of residence of status adjusters is generally similar to the distribution of intended places of residence for predeparture immigrants, as can be seen in Table 48, although fewer status adjusters are shown for Hawaii.

Table 48. Destination in the United States: percentage of predeparture immigrants and status adjusters, by intended (IPDA) and actual (SAS) state of residence, 1986

State	IPDA	SAS
California	50.6	49.4
Hawaii	10.6	4.2
Illinois	4.4	6.3
New York	3.8	5.8
New Jersey	3.1	3.2
Texas	2.3	3.7
Washington	2.7	2.5
Virginia	2.6	2.3
Florida	2.3	2.5
Nevada	1.4	1.7
Other states	16.3[a]	18.4[b]
Number	2,076[c]	1,558[d]

a. Includes other U.S. states, Guam, Puerto Rico, and the Virgin Islands.

b. Includes other U.S. states, Guam, Pacific Islands, and U.S. military bases.

c. Excludes from the analysis one case for whom datum was missing.

d. Excludes from the analysis seven cases for whom data were missing.

The important role played by family networks in the decisions of immigrants is underscored when the reasons for their choice of intended destination are examined. Fully 92 percent of the IPDA respondents who had a definite choice of destination mentioned being with their relatives as the reason for their choice (Table 49). In most cases, the relative being joined was also the petitioner under provisions of the immigration law. This factor accounts for some of the gender differences in Table 49, for example the high proportion of females joining a spouse or fiancé.

These and other analyses show that important processes in the areas of both origin and destination and interconnections between them influence migration decisions. In the Philippines, family networks exert a major influence on migration decisions and affiliation-related reasons are primary in motivating the move. Family connections are likewise a major factor in the choice of destination. Thus, family networks and extensive kinship ties perform crucial facilitating functions. Other studies of Philippine immigration also show that auspices provided by relatives constitute one of the most important factors in migration decisions and behavior (De Jong et al. 1983; Caces 1985).

Table 49.-Reason for choosing intended U.S. destination, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
First reason mentioned	Number	%	Number	%	Number	%
Family						
Spouse/fiancé(e) lives there	96	10.8	352	29.8	448	21.6
Parents live there	293	32.8	224	19.0	517	24.9
Children live there	159	17.8	232	19.6	391	18.8
Siblings live there	129	14.5	116	9.8	245	11.8
Family members/in-laws live there	133	14.9	106	9.0	239	11.5
Family members/relatives own house there	38	4.3	30	2.5	68	3.3
Family member chose destination	2	0.2	3	0.3	5	0.2
Plan to marry there	1	0.1	4	0.3	5	0.2
Father is buried there	0	0.0	1	0.1	1	0.1
Subtotal	851	95.4	1,068	90.4	1,919	92.4
Economic						
Jobs are available there	6	0.7	7	0.6	13	0.6
Investment opportunities are available there	0	0.0	1	0.1	1	0.1
Spouse/fiancé(e)'s work is there	12	1.3	60	5.1	72	3.5
Respondent's work is there	5	0.6	17	1.4	22	1.1
Family member(s) work there	7	0.8	11	0.9	18	0.9
Subtotal	30	3.4	96	8.1	126	6.2
Social and environmental						
Many Filipinos live there	1	0.1	1	0.1	2	0.1
Friends live there	8	0.9	4	0.3	12	0.6
It is a nice place to retire/peaceful	1	0.1	1	0.1	2	0.1
Climate is nice there	1	0.1	4	0.3	5	0.2
It has more recreational centers	0	0.0	2	0.2	2	0.1
Subtotal	11	1.2	12	1.0	23	1.1
Other	1	0.1	6	0.5	7	0.3
Total[a]	893	100.1	1,182	100.0	2,075	100.0

[a] Excludes from the analysis two cases for whom data were missing.

EXPECTED JOBS AND FURTHER TRAINING

Job Expectations

A sizable majority of the IPDA respondents (83 percent) expected to work once they arrived in the United States (Table 50). As is consistent with the traditional role of the Filipino husband as the principal breadwinner of the family, a much higher proportion of males (94 percent) than of females (74 percent) expected to work in the United States. Among men, the main reason for nonworking status was retirement. Among women, the great majority of nonworkers (82 percent) were housewives.

As shown in Table 51, most new immigrants expected to find jobs in the service sector (27 percent) or in white-collar clerical positions (19 percent). Among women, service and clerical jobs accounted for over half of all expected employment. Among men, service jobs were most frequently expected, followed by production, then clerical. Many of the new immigrants expected their initial occupations in the United States to have lower status than their occupational experience in the Philippines. As shown earlier, (Table 28) 27 percent of the IPDA respondents working before departure had professional or technical employment backgrounds. Only 12 percent of both men and women expected to have professional occupations in the United States, however. (It should be remembered, nevertheless, that the proportion of status adjusters in professional and technical jobs was much higher—22 percent, as shown in Table 30.)

Table 50. Expectation of work in the United States, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Expectation	Number	%	Number	%	Number	%
Whether expecting to work						
Yes	843	94.3	880	74.4	1,723	83.0
No	51	5.7	300	25.4	351	16.9
Don't know	0	0.0	3	0.3	3	0.1
Total	894	100.0	1,183	100.1	2,077	100.0
Type of nonwork activity						
Study	9	17.7	24	8.1	33	9.5
Housekeeping	15	29.4	243	82.1	258	74.4
Retirement	20	39.2	15	5.1	35	10.1
Other	7	13.7	14	4.7	21	6.1
Total[a]	51	100.0	296	100.0	347	100.1

a. Excludes from the analysis four cases for whom data were missing.

Type of Work and the Job-finding Process

Only 20 percent of the IPDA respondents, both males and females, had prearranged jobs (Table 51), but most of the remainder expected help from someone in finding a job after they arrived in the United States. The role of family networks was again crucial in the job-finding process. Among those with prearranged jobs, 96 percent had gotten their jobs through relatives (data not shown). Among the 80 percent who did not have prearranged jobs, the vast majority (96 percent) expected to rely on relatives for help in finding a job after arrival (Table 52). The most common sources of ex-

Table 51. For those expecting to work in the United States, type of job arrangements made, and type of job for those with advance arrangements or expecting help, by sex: IPDA, 1986

Job arrangement/ type of job	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Job arrangement						
Has made arrangements	165	19.6	176	20.1	341	19.8
Has not made arrangements, but expects someone to help find a job	605	71.8	638	72.8	1,243	72.3
Has not made arrangements, and does not expect anyone to help find a job	73	8.7	62	7.1	135	7.8
Total	843	100.1	876[a]	100.0	1,719	99.9
Type of job						
Professional/technical/ related work	91	11.8	94	11.6	185	11.7
Administrative/management work	10	1.3	8	1.0	18	1.1
Clerical/related work	95	12.4	210	25.8	305	19.3
Sales	18	2.3	58	7.1	76	4.8
Farming/fishing/hunting/ logging/mining	69	9.0	41	5.0	110	7.0
Transport/communication	45	5.8	2	0.2	47	3.0
Crafts/production process work/other labor n.e.c.	157	20.4	65	8.0	222	14.0
Service/sport/recreation	183	23.8	246	30.3	429	27.1
Don't know	101	13.1	89	11.0	190	12.0
Total[b]	769	99.9	813	100.0	1,582	100.0

n.e.c. = not elsewhere classified.

a. Excludes from the analysis four cases for whom data were missing.

b. Excludes from the analysis two cases (one male, one female) for whom data were missing.

Table 52. Person from whom expecting help in finding a job, for those without a prearranged job, by sex: predeparture immigrants (IPDA), 1986

Person from whom expecting help	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Brother(s)/sister(s)	142	23.5	142	22.3	284	22.9
Spouse	58	9.6	128	20.1	186	15.0
Father/mother	100	16.5	81	12.7	181	14.6
Brother(s)-in-law/ sister(s)-in-law	59	9.8	61	9.6	120	9.7
Daughter(s)	60	9.9	45	7.1	105	8.5
Aunt(s)/uncle(s)	51	8.4	40	6.3	91	7.3
Fiancé/fiancée	13	2.2	54	8.5	67	5.4
Son(s)	27	4.5	18	2.8	45	3.6
Cousins	17	2.8	13	2.0	30	2.4
Mother-in-law/father-in-law	10	1.7	16	2.5	26	2.1
Family/relatives	6	1.0	3	0.5	9	0.7
Son(s)-in-law	6	1.0	2	0.3	8	0.6
Grandparents	2	0.3	3	0.5	5	0.4
Niece/nephew	4	0.7	1	0.2	5	0.4
Brother/sister and brother-in-law/sister-in-law	4	0.7	1	0.2	5	0.4
Daughter(s) and son(s)	3	0.5	1	0.2	4	0.3
Parents and brother(s)/sister(s)	1	0.2	2	0.3	3	0.2
Daughter(s)-in-law	2	0.3	0	0.0	2	0.2
Grandchildren	0	0.0	1	0.2	1	0.1
Parents, brothers and sisters	0	0.0	1	0.2	1	0.1
Parents and friends	1	0.2	0	0.0	1	0.1
Stepmother/stepfather	1	0.2	0	0.0	1	0.1
Other relatives	5	0.8	6	0.9	11	0.9
Others	33	5.5	17	2.7	50	4.0
Total	605	100.3	636[a]	100.1	1,241	100.0

a. Excludes from the analysis two cases for whom data were missing.

pected help were brothers and sisters (23 percent), spouses (15 percent), fathers or mothers (15 percent), and brothers-in-law or sisters-in-law (10 percent). Men and women had similar patterns of response, except that women, more than men, tended to expect help from their spouses and fiancé(e)s.

Among the small number of respondents who did not expect help from anyone, most (61 percent) planned to apply to agencies or businesses for a job (Table 53). Others expected to start their own business (20 percent) or simply to rely on newspaper advertisements or job opening notices.

Table 53. Method of finding a job for those without prior job arrangements and not expecting anyone to help them find a job, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Method of finding a job	Number	%	Number	%	Number	%
Through newspaper advertisement	4	5.5	8	12.9	12	8.9
By applying to agencies or businesses	47	64.4	35	56.5	82	60.7
By approaching a government official/politician	2	2.7	1	1.6	3	2.2
By starting own business	13	17.8	14	22.6	27	20.0
Other	0	0.0	2	3.2	2	1.5
Don't know	2	2.7	2	3.2	4	3.0
No answer	5	6.8	0	0.0	5	3.7
Total	73	99.9	62	100.0	135	100.0

Table 54. How quickly expecting to start work in the United States, by sex: - predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Length of time	Number	%	Number	%	Number	%
Immediately/within one month	205	24.4	190	21.8	395	23.1
4-8 weeks	153	18.2	149	17.1	302	17.6
9-12 weeks	99	11.8	79	9.1	178	10.4
13-16 weeks	79	9.4	76	8.7	155	9.0
17-20 weeks	16	1.9	15	1.7	31	1.8
21+ weeks	78	9.3	126	14.5	204	11.9
Other	3	0.4	3	0.3	6	0.4
Don't know	209	24.8	233	26.8	442	25.8
Total[a]	842	100.2	871	100.0	1,713	100.0

a. Excludes from the analysis 10 cases for whom data were missing.

Respondents expected to find work fairly quickly (Table 54). Nearly a quarter of the respondents expected to start working within one month of their arrival in the United States, and more than a half expected to start work within three months. Only a tiny percentage, however, expected to keep their first jobs permanently (Table 55). A substantial proportion (40 percent) had no idea whether they would keep their first jobs or not, and many (28 percent) indicated that how long they remained in their jobs would

Table 55. Expected duration of first job in the United States and circumstances likely to affect duration, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Expectation	Number	%	Number	%	Number	%
Expected duration						
≤12 months	92	11.0	100	11.5	192	11.2
13–24 months	41	4.9	42	4.8	83	4.9
25–36 months	20	2.4	21	2.4	41	2.4
37–48 months	7	0.8	6	0.7	13	0.8
49–60 months	41	4.9	42	4.8	83	4.9
61–240 months	45	5.4	22	2.5	67	3.9
241 months+	3	0.4	1	0.1	4	0.2
Permanently	26	3.1	29	3.3	55	3.2
It depends on circumstances (see below)	233	27.7	248	28.6	481	28.2
Other	7	0.8	4	0.5	11	0.6
Don't know	325	38.7	353	40.7	678	39.7
Total	840	100.1	868	99.9	1,708[a]	100.0
Circumstances likely to affect duration						
If I like my first job	114	48.9	108	43.6	222	46.2
If first job pays well	36	15.5	31	12.5	67	13.9
If I remain strong/healthy	27	11.6	41	16.5	68	14.1
Availability of other jobs	37	15.9	41	16.5	78	16.2
Family member's decision	2	0.9	4	1.6	6	1.3
Expect to remain until I earn enough money for education	3	1.3	2	0.8	5	1.0
Other	14	6.0	21	8.5	35	7.3
Total[a]	233	100.1	248	100.0	481	100.0

a. Excludes from the analysis 15 cases for whom data were missing.

depend on various circumstances. Respondents perceived several circumstances that could determine their job longevity, the most frequently mentioned of which was simply whether they liked the job.

Self-employment

Compared with some other Asian immigrant groups, (e.g., Koreans, Chinese, and Japanese), Filipinos are not known for their propensity to engage in entrepreneurial activity. Nevertheless, as shown in Table 56, 20 percent of the IPDA sample intended to engage in business in the United

Table 56. Expectations about starting a business in the United States, by sex, marital status, and travel plans: predeparture immigrants (IPDA), 1986

Sample and expectation	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Subsample: respondent currently married and spouse will accompany						
Expecting to go into business[a]	60	22.6	34	17.9	94	20.7
Not expecting to go into business	205	77.4	156	82.1	361	79.3
Total[b]	265	100.0	190	100.0	455	100.0
Subsample: respondent not married, or married but spouse will not accompany						
Expecting to go into business	147	23.6	163	16.6	310	19.3
Not expecting to go into business	475	76.2	819	83.2	1,294	80.5
Don't know	1	0.2	2	0.2	3	0.2
Total[c]	623	100.0	984	100.0	1,607	100.0
Total sample						
Expecting to go into business	207	23.3	197	16.8	404	19.6
Not expecting to go into business	680	76.6	975	83.1	1,655	80.3
Don't know	1	0.1	2	0.2	3	0.2
Total	888	100.0	1,174	100.1	2,062	100.1

a. For the 94 couples traveling together who expected to go into business, 83 percent planned a joint business, and 17 percent planned a business run by the respondent or spouse alone.

b. Excludes three cases (two males and one female) for whom data were missing.

c. Excludes 12 cases (four males and eight females) for whom data were missing.

States. Men (23 percent) were somewhat more likely than women (17 percent) to be planning to pursue an entrepreneurial career. There was no marked difference between married respondents who were immigrating with their spouses and the respondents who were not married or who were married but not accompanied by a spouse. This finding is surprising, because spouses often play an important role in immigrant business enterprises.

Prospective enterpreneurs were asked what types of business they expected to operate in the United States. Nearly half (48 percent) mentioned businesses that would provide services, of which the largest single category was restaurant (Table 57). One-quarter indicated sales and merchandising. Only 8.6 percent of the immigrants expected to start a business in manufac-

Table 57. Kind of business intending to start: predeparture immigrants (IPDA), 1986

Kind of business	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Service						
Construction	6	2.9	5	2.6	11	2.8
Social services (daycare)	7	3.4	3	1.6	10	2.5
Community services	7	3.4	12	6.3	19	4.8
Personal services	16	7.8	20	10.4	36	9.1
Food services (restaurant)	35	17.1	55	28.7	90	22.7
Sanitary services	1	0.5	0	0.0	1	0.3
Services (repair, etc.)	21	10.2	2	1.0	23	5.8
Subtotal	93	45.4	97	50.5	190	47.9
Sales/merchandising						
Wholesale/retail trade	44	21.5	43	22.4	87	21.9
Real estate	6	2.9	6	3.1	12	3.0
Subtotal	50	24.4	49	25.5	99	24.9
Manufacturing						
Crude petroleum and gas	1	0.5	0	0.0	1	0.3
Food and beverage processing	2	1.0	1	0.5	3	0.8
Textiles	0	0.0	1	0.5	1	0.3
Footwear/other apparel	5	2.4	2	1.0	7	1.8
Furniture and fixtures	5	2.4	6	3.1	11	2.8
Printing and publishing	0	0.0	1	0.5	1	0.3
Paper and paper products	0	0.0	1	0.5	1	0.3
Chemical products	1	0.5	0	0.0	1	0.3
Machinery, excluding electrical	1	0.5	0	0.0	1	0.3
Electrical machinery	0	0.0	2	1.0	2	0.5
Handicraft/shellcraft	4	2.0	1	0.5	5	1.3
Subtotal	19	9.3	15	7.8	34	8.6
Professional/technical						
Banks/other financial institutions	2	1.0	2	1.0	4	1.0
Recruiting agencies	1	0.5	0	0.0	1	0.3
Computer firms	1	0.5	0	0.0	1	0.3
Educational services	0	0.0	1	0.5	1	0.3
Subtotal	4	2.0	3	1.6	7	1.8
Other						
Agricultural production	1	0.5	0	0.0	1	0.3

Table 57. *(continued)*

Kind of business	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Fishing/fishponds	2	1.0	0	0.0	2	0.5
Recreational services	1	0.5	1	0.5	2	0.5
Business not clearly defined	17	8.3	13	6.8	30	7.6
Subtotal	21	10.2	14	7.3	35	8.8
Don't know	18	8.8	14	7.3	32	8.1
Total[a]	205	100.1	192	100.0	397	100.1

a. Excludes from the analysis seven cases for whom data were missing.

Table 58. How soon expecting to start a business, by sex: predeparture immigrants (IPDA), 1986

Length of time	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Within one year	22	10.6	26	13.3	48	11.9
1-3 years	70	33.8	55	28.1	125	31.0
More than 3 years	94	45.4	91	46.4	185	45.9
Other	17	8.2	15	7.7	32	7.9
Don't know	4	1.9	9	4.6	13	3.2
Total	207	99.9	196[a]	100.1	403	99.9

a. Excludes from the analysis one case for whom datum was missing.

turing, and even fewer (1.8 percent) expected to be self-employed professionals. Gender differences were slight, although women were more likely to start food-related businesses than men, and men were more likely to engage in repair services.

As perceived by the respondents, the time required for starting a business would be long. Only 43 percent expected to go into business within three years after arrival in the United States (Table 58), and only 12 percent expected to be in business within one year of their immigration. No major differences emerged between men and women in their responses to this question.

Only half of those intending to start a business were able to give an estimate of the amount of capital that would be needed. The estimates of those who could give a figure ranged widely, as shown in Table 59, with a median figure of about 31 thousand dollars. Men gave higher estimates, on the average, than women.

Table 59. Estimates of the amount of money needed to start a business in the United States, by sex: predeparture immigrants (IPDA), 1986

Estimate	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
<$10,000	22	10.8	25	12.8	47	11.8
$10,000-19,999	25	12.2	7	3.6	32	8.0
$20,000-29,999	8	3.9	7	3.6	15	3.8
$30,000-39,999	2	1.0	6	3.1	8	2.0
$40,000-49,999	2	1.0	3	1.5	5	1.2
$50,000-99,999	21	10.3	17	8.7	38	9.5
$100,000-199,999	11	5.4	7	3.6	18	4.5
$200,000+	24	11.8	13	6.7	37	9.3
Other	1	0.5	0	0.0	1	0.2
Don't know	88	43.1	110	56.4	198	49.6
Total[a]	204	100.0	195	100.0	399	99.9
Mean[b]	$181,190		$132,020		$160,290	
Median[b]	$ 40,500		$ 30,700		$ 30,857	

a. Excludes from the analysis four cases for whom data were missing.

b. Excludes "other," "don't know," and "no answer" responses. Means and medians calculated from ungrouped data.

Part of the reason for the projected long delay in starting a business is that an overwhelming majority of the prospective entrepreneurs (87 percent) said they did not yet have sufficient capital (Table 60). Among those requiring additional capital, a substantial proportion (44 percent) planned to accumulate the necessary funds only through savings. The importance of family and social networks as a supplementary resource is shown by the fact that more than one-third of those intending to go into business would rely on borrowing from relatives and friends for at least part of their capital accumulation.

Additional Training

Information was also sought on the IPDA respondents' plans to obtain additional training or education in the United States, as an indicator of enhancing their labor market skills or facilitating their adaptation. As shown in Table 61, just over one-fourth (27 percent) had such plans. Among those who intended to obtain additional training, about one-fifth (22 percent) specified training in computer data processing, and a similarly large percentage (18 percent) expected to obtain higher education (college or graduate study). Thirteen percent indicated medical training (midwifery, first aid, etc.); electrical, mechanical, and accounting training were somewhat less popular. More men than women expected to obtain higher education and

Table 60. Percentage having adequate capital and ways of getting initial capital for a business, by sex: predeparture immigrants (IPDA), 1986

	Males		Females		Both sexes	
Needed capital	Number	%	Number	%	Number	%
Whether respondent has enough capital						
Yes	25	12.1	27	13.8	52	12.9
No	182	87.9	169	86.2	351	87.1
Total	207	100.0	196[a]	100.0	403	100.0
Expected ways to get needed capital						
1. Borrowing from bank	9	5.0	5	3.0	14	4.0
2. Borrowing from relatives or friends	14	7.7	16	9.5	30	8.6
3. Saving	67	36.8	87	51.5	154	43.9
4. Selling or mortgaging property	5	2.8	3	1.8	8	2.3
1 + 2	2	1.1	3	1.8	5	1.4
1 + 3	25	13.7	18	10.7	43	12.3
1 + 4	2	1.1	1	0.6	3	0.9
2 + 3	43	23.6	28	16.6	71	20.2
2 + 4	1	0.6	0	0.0	1	0.3
3 + 4	3	1.7	1	0.6	4	1.1
1 + 2 + 3	7	3.9	6	3.6	13	3.7
1 + 3 + 4	1	0.6	0	0.0	1	0.3
2 + 3 + 4	1	0.6	1	0.6	2	0.6
Other	2	1.1	0	0.0	2	0.6
Total	182	100.3	169	100.3	351	100.2

a. Excludes from the analysis one case for whom datum was missing.

undergo training in the electrical and mechanical fields. On the other hand, more women than men expected to obtain training in the medical field.

EXPECTED PROBLEMS AND FUTURE PLANS

All immigrants can expect to encounter difficulties when they move to a new country. The extent and nature of such problems vary, however. This section focuses on the problems that the predeparture immigrants in our survey expected to encounter in the course of adjusting to their new environment. Their plans concerning citizenship and return migration are also examined in relation to selected sociodemographic characteristics of the respondents. Findings on these topics should provide good benchmarks

Table 61. Plans for additional education in the United States, by sex: predeparture immigrants (IPDA), 1986

Plan	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Planning for education or training						
Yes	262	29.3	303	25.7	565	27.2
No	515	57.6	753	63.8	1,268	61.1
It depends on circumstances	117	13.1	125	10.6	242	11.7
Total	894	100.0	1,181[a]	100.1	2,075	100.0
Number of types of training mentioned						
1	252	66.5	282	65.9	534	66.2
2	5	1.3	14	3.3	19	2.4
3	1	0.3	0	0.0	1	0.1
4	0	0.0	2	0.5	2	0.3
Depends, don't know	121	31.9	130	30.4	251	31.1
Total	379	100.0	428	100.1	807	100.1
Kind of education or training first mentioned						
Education						
Elementary school	2	0.8	3	1.0	5	0.9
High school	8	3.1	23	7.7	31	5.6
College/university	34	13.1	20	6.7	54	9.7
Graduate education	22	8.5	26	8.7	48	8.6
History (Asian Studies)	0	0.0	3	1.0	3	0.5
Liberal arts	0	0.0	1	0.3	1	0.2
Training						
Data processing	60	23.1	62	20.8	122	21.9
Medical (midwifery, first-aid, etc.)	14	5.4	56	18.8	70	12.5
Electrical (refrigeration, radio, air-conditioning, etc.)	31	11.9	4	1.3	35	6.3
Mechanical (automotive, diesel mechanic, aircraft maintenance)	27	10.4	3	1.0	30	5.4
CPA review/financial (accounting, cashiering, bookkeeping)	12	4.6	17	5.7	29	5.2
Clerical (typing, secretarial, steno)	2	0.8	20	6.7	22	3.9
Other vocational	8	3.1	6	2.0	14	2.5

Table 61. *(continued)*

Plan	Males		Females		Both sexes	
	Number	%	Number	%	Number	%
Drawing/drafting	6	2.3	5	1.7	11	2.0
Languages	2	0.8	8	2.7	10	1.8
Beauty culture (hair science, manicure, cosmetics, etc.)	0	0.0	8	2.7	8	1.4
Dressmaking/tailoring	1	0.4	6	2.0	7	1.3
Driving/piloting	5	1.9	2	0.7	7	1.3
Religious training	2	0.8	4	1.3	6	1.1
Hotel maintenance training	2	0.8	3	1.0	5	0.9
Law enforcement	3	1.2	2	0.7	5	0.9
Management training	2	0.8	3	1.0	5	0.9
Agricultural (swine breeding, agrarian, etc.)	3	1.2	1	0.3	4	0.7
Sales	2	0.8	1	0.3	3	0.5
Advertising	1	0.4	1	0.3	2	0.4
Food processing	0	0.0	2	0.7	2	0.4
Legal training	2	0.8	0	0.0	2	0.4
Telephone operator	0	0.0	2	0.7	2	0.4
Crafts (ceramics, handicrafts, etc.)	1	0.4	0	0.0	1	0.2
Laboratory technician	0	0.0	1	0.3	1	0.2
Music	1	0.4	0	0.0	1	0.2
Theater arts	0	0.0	1	0.3	1	0.2
Don't know	7	2.7	4	1.3	11	2.0
Total[a]	260	100.5	298	99.7	558	100.4

a. Excludes two inapplicable responses.

for future follow-up studies on the actual adaptation experiences of the respondents.

Expected Problems

In part because of the important role played by family networks in providing auspices for new immigrants, only a small proportion of the predeparture respondents—both male and female—said that they expected to encounter problems in the host society. One of the more common problems cited was language, which family networks would have little power to affect (Table 62). Mentioning language as a problem was consistent with the low self-ratings on English language ability mentioned earlier. A more salient problem, mentioned by 18 percent of the respondents as affecting Filipi-

Table 62. Percentage expecting selected problems after arriving in the United States, by sex: predeparture immigrants (IPDA), 1986

Type of problem	Percent expecting problem		
	Males	Females	Both sexes
Language	15.5	18.0	16.9
Schooling	9.7	8.0	8.8
Jobs	9.1	7.7	8.3
Cost of living	5.6	4.5	5.0
Housing	4.4	3.6	3.9

Table 63. First type of discrimination mentioned by those believing that Filipinos are discriminated against, by sex: IPDA, 1986

Type of discrimination	Percentage mentioning problem		
	Males	Females	Both sexes
Being least preferred for certain jobs	27.4	19.0	23.3
Being looked down upon	16.8	24.0	20.3
Not being promoted	17.9	16.8	17.3
Not being accepted	7.4	6.7	7.0
Other types of discrimination	30.6	33.6	31.9
Total	100.1	100.1	99.8
Number perceiving discrimination[a]	190	179	369

[a] Excludes from the analysis two cases for whom data were missing.

nos in the United States generally, was discrimination (data not shown). Other researchers have noted that Filipino immigrants often encounter resistance in their efforts to participate actively in the social and economic life of the United States (e.g., Okamura and Coller, n.d.). When asked about the ways in which they thought Filipinos were discriminated against, many IPDA respondents mentioned being least preferred for certain types of jobs (23 percent) or being looked down upon by others generally (20 percent), as shown in Table 63. Nevertheless, the problem of discrimination seemed to be viewed as either a minor problem or one that was perceived mainly as affecting others. Among those who mentioned discrimination as a problem for Filipinos in the United States, fewer than one-fifth (19 percent) expected to experience serious discrimination personally (Table 64).

The situation of status adjusters was different from that of IPDA respondents, owing to their experience living in the United States prior to the sur-

Table 64. Expectations about personally experiencing serious discrimination among those believing Filipinos are discriminated against, by sex: predeparture immigrants (IPDA), 1986

Whether expecting serious discrimination problems personally	Percent mentioning problem		
	Males	Females	Both sexes
Yes	18.9	18.4	18.6
No	81.1	81.6	81.4
Total	100.0	100.0	100.0
Number[a]	164	158	322

[a] Excludes from the analysis 49 cases for whom data were missing.

Table 65. Problems experienced in the United States, by sex: status adjusters (SAS), 1986

Type of problem	Percentage experiencing problem		
	Males	Females	Both sexes
Jobs	37.7	28.0	30.3
Cost of living	18.9	16.8	17.3
Housing	16.3	15.5	15.7
Language	11.1	10.8	10.9

vey. As seen in Table 65, the problems cited most frequently by status adjusters had to do with jobs (30 percent) and, to a lesser extent, cost of living (17 percent) and housing (16 percent). As their higher educational attainment and longer time spent in the United States would suggest, only 11 percent of the status adjusters reported language as a problem.

Plans for Citizenship and Return

As a gauge of the strength of their ties with the home country, both survey groups were asked about their plans to obtain citizenship in the United States and their plans to return permanently to the Philippines someday (Table 66). A large majority of both IPDA and SAS respondents (74 and 73 percent, respectively) said they planned to become citizens of the United States, and little variation between males and females was found (SAS data not shown).

Differences among age groups were greater than between sexes. Table 66 shows that the proportion of IPDA respondents intending to become citizens was generally lower among older immigrants, although even at the oldest age category a good majority planned to become U.S. citizens.

Table 66. Citizenship plans, by age and sex: predeparture immigrants (IPDA), 1986

Age group	Percentage intending to become citizens		
	Males	Females	Both sexes
<20	84.2	85.3	84.7
20-29	79.7	83.9	82.3
30-39	69.0	74.4	72.0
40-49	60.8	72.5	67.0
50-59	70.6	70.4	70.5
60+	65.5	59.2	61.9
Total	72.3	75.9	74.3

Citizenship plans do not necessarily indicate that immigrants have no intention of returning permanently to the Philippines. Among IPDA respondents, over one-third (36 percent) intended to return home someday, with a higher proportion of males (40 percent) than of females (33 percent) expressing such an intention. Perhaps because of their superior job qualifications, and in part because they had already adapted to the host society, the proportion of status adjusters who expressed an intention to return was much lower for males (23 percent). It was, however, much higher for females (76 percent). The reasons for this gender difference are unclear but presumably are related in some way to the high proportion of SAS females becoming immigrants through marriage.

An age pattern is discernible among IPDA respondents, a higher percentage of those in the older age cohorts intending to return home permanently (Table 67). It seems that many of the respondents viewed the United States, with its attractive employment opportunities, as the place to be during their economically active years, and the Philippines, with its congenial people and good moral climate, as the place for eventual retirement. A factor in this contrasting perception of the two countries, as shown in other research, is the greater purchasing power in the Philippines of dollars received from the U.S. social security system.

SUMMARY AND CONCLUSIONS

This report on the 1986 Immigrant Pre-Departure Assessment Survey in the Philippines and the Filipino Status Adjusters Survey in the United States has focused on the socioeconomic profile of the respondents and their human resource characteristics. It has also examined immigration processes in the areas of origin and destination, as well as plans and expectations of the new immigrants for life in the United States.

Table 67. Expectations about returning to the Philippines permanently, by age and sex: predeparture immigrants (IPDA), 1986

Age group	Percentage intending to return to the Philippines permanently		
	Males	Females	Both sexes
<20	29.7	32.4	31.0
20–29	33.6	24.0	27.7
30–39	43.8	32.4	37.5
40–49	46.7	40.6	43.4
50–59	49.6	44.0	46.4
60+	40.9	40.9	40.9
All ages	40.3	33.1	36.2

At the broadest level, the data reveal that certain sociodemographic selectivities characterize Filipino immigration to the United States. The immigrant flow includes more women and more people with generally superior educational qualifications and occupational experience than the population of the Philippines. These selectivities could have important implications both for the development of the sending nation and for immigrant adaptation in the United States.

The survey data reveal the diversity that exists among immigrant groups, a diversity that seems to have been enhanced by the U.S. government's system of immigration preferences and numerical limitations. In particular, we find sociodemographic disparities between immigrants who enter the United States on the basis of occupational skills and qualifications, and those who enter on the basis of family reunification provisions of the immigration law. On the one hand, we find that occupational preference immigrants are more likely to be in their prime working ages, more professional in occupational background, and characterized by higher levels of educational attainment. On the other hand, we note that family-based immigrants are relatively older, much less professional in occupational background, and generally below the occupational preference immigrants in socioeconomic status. Nevertheless, the family-based immigrants do exhibit a wide range of skills and wide experience. It is noteworthy that the family preference immigrants (as opposed to immediate family members) are quite close to the occupational preference immigrants on some key socioeconomic indicators.

Nonimmigrant admissions also contribute to the diversity of the Filipino immigrant population in the United States. By admitting temporary workers and students as nonimmigrants, the United States is unintentionally admitting immigrants because many of these young people find a way to become U.S. citizens. Status adjusters have generally superior educational and occupational qualifications than the new arrivals. Proportionately more status adjusters are also women, a phenomenon that can be accounted for by the many fiancées of male U.S. citizens who shift to permanent status through marriage.

The sources of diversity, therefore, are many: historical factors, the pattern of economic development in the Philippines, modes of entry, and the system of preferences and exemptions. One common feature of Filipino immigration, however, is the heavy reliance of the immigrants on family networks in coping with adaptation problems in the host society. Such coping mechanisms reduce the assistance required from governments of both the sending and receiving societies.

These trends, patterns, and characteristics of Filipino immigration should be taken into account in immigration policy decisions, especially in the light of the fact that Filipinos have recently become the largest Asian group in the United States. For the sending society, a major concern must be the continued departure of the highly skilled, reflecting as it does the inadequacies of the country's manpower and emigration policies, as well as its level of economic development. For the receiving society, the policy issue involves not only the increasing volume of Filipino immigration, but also the increasing diversity of experience and skills, and how these diverse new immigrants mesh with the country's social and economic system. One important implication of diversity is, of course, that Filipino immigration is unlikely to have a significant impact, positive or negative, on any one segment of the labor market.

Many Filipino immigrants, before their move, say they do not have a clear idea about the United States as a place to live but they generally rate it as a considerably better place than the Philippines in most respects. Although they expect to work hard at occupations that in many cases do not reflect their skills and previous work experience, the majority do not anticipate having major problems in the United States in the areas of housing, cost of living, jobs, schooling, language, or discrimination. Like other immigrants, they come to the United States expecting a better life in material terms and greater opportunities for upward mobility, for both themselves and their children. The extent to which their expectations will actually be realized will be assessed in follow-up studies of the 1986 immigrants after they have been living in the United States for several years. Such studies, which are now under way, will also assess how different subgroups within this 1986 cohort of Filipino immigrants adjust to their new situation and will examine comparatively the experiences of Filipino and Korean immigrants.

APPENDIX 1

IMMIGRANT PRE-DEPARTURE ASSESSMENT (IPDA) SURVEY: SUMMARY OF QUESTIONNAIRE

Demographic Data

Age, sex
Marital status
— If married, years of marriage
Birthplace and usual residence, how long at usual residence
Migration history since age 15
Spouse's birthplace and ethnicity
Religion and rating of importance of religion

Human Resources

Educational attainment in home country (also for spouse)
Major field (for those with some college)
Vocational or technical training completed
English language training (in addition to formal schooling)
Professional licenses or certificates held
English ability (self-rated, 5 items)
Whether attended school in United States
— Type of school, how long attended
— Whether received degree
— Whether had scholarship
Whether previously worked in the United States
— Type of work
— How long worked
Work experience or activity status during 12 months before departure for the United States
— Type of work (or activity status: not employed, looking for work; student; housekeeping; retired; etc.)
— Whether self-employed
— Whether worked in family business or farm
— Hours worked per week
— Income
All previous jobs held for 1 year or more
— Type of work
— Duration
Spouse's work or activity status during 12 months before departure for the United States
— Type of work (or activity status: not employed, looking for work; student; housekeeping; retired; etc.)

— Whether self-employed
— Whether worked on family business or farm
— Income
Respondent's father's occupation
Respondent's mother's occupation
Self-listing of respondent's skills that might be helpful in obtaining a job in the United States

Expected education/work/business in the United States

Expectations for additional education or training in the United States
Expected type of work or activity status in the United States
— Whether job is prearranged and if so:
  Whether it is in a business owned by a relative
  Type of work
  Location
  Who arranged job
— If job is not prearranged:
  Who will help or how will respondent find job
  Kind of job expected
  Location for job search (city and state)
— Expectations for first job:
  When respondent expects to begin work
  Number of working hours per week
  Amount of income
  How long respondent expects to stay in first job
— Expectations for job 5 years after arrival in the United States:
  Type of job
  Income
— Whether spouse has prearranged job in the United States
  Type of job
Whether respondent or spouse expects to start a business in the United States
  If so:
— Sole or joint ownership
— Type of business (or businesses)
— Location of business (city and state)
— How soon after arrival respondent or spouse will start business
— Amount of capital needed
— Whether already have enough capital
  If not, how respondent or spouse will obtain capital
— Whether family members will work in business
— Whether nonfamily members will be employed in the business
— Whether respondent or spouse will have any partners in business
— Whether respondent or spouse currently owns property in the United States

— Whether any family members currently own or manage a business in the United States, and if so:
  Type of business(es)
  Location (city and state)
  Number of employees
  Whether respondent plans to work in business sometime

Immigration Processes

Year respondent first thought about immigrating
— Reasons
Year immigration petition was filed
Degree of clarity about the United States as place to live
Whether respondent had much contact with Americans
— Type of contacts
Whether respondent considered moving to countries other than the United States
— Which countries
Whether respondent has ever been to the United States
— Frequency, length of visits
Whether respondent has ever been to any other country
City and state of first intended residence in the United States
— Reasons for choice of destination
— How long respondent expects to stay, where moving to next and why
Whether respondent applied to immigrate on own or through agency
— Cost of agency assistance
Main reasons for immigrating
Whether decision was mostly respondent's own or involved others
Whether family members opposed move
Whether respondent has had problems getting money for move
Degree of difficulty with paperwork and official arrangements
— What was most difficult
Suggestions for home government and U.S. government to make process easier
Whether arrangements have been made for place to stay in the United States
— Expected cost of initial housing
How much money has been sent to the United States/will be taken to the United States
Whether intending to keep any house, land, or business in the Philippines

Family Networks

Listing and details below for following family members of respondent: father, mother, spouse/fiancé(e), children, siblings
— City, state, and country of residence
— Age

- Marital status (if married: number of children)
- Whether will accompany respondent to United States (or year of immigration if in the United States)
- Whether will move to the United States someday/within 3 years

List of other relatives and in-laws in the United States
List of other relatives who may move to the United States someday
Year first family members moved to the United States

Place Perceptions

Ratings on scale from 0 to 10 for home country and for the United States on:
- Wages
- Friendliness of people
- Variety of enjoyable things to do
- Opportunities to get ahead economically
- Opportunities for improving social status
- Moral climate
- Educational opportunities
- Freedom from crime
- Standard of living
- Political conditions
- Providing rewards for hard work and ability

Worst thing respondent has heard about the United States
Worst thing about living in home country

Expectations

Self-rating of current social class and rating of expected social class in the United States after 2 years
Rating of life satisfaction before departure and expected satisfaction after 2 years and after 5 years in the United States
Whether problems expected in:
- Housing: type of problem
- Cost of living: type of problem
- Jobs: type of problem and whether for respondent, family members, or both
- Schooling: type of problem and whether for respondent, family members, or both
- Language: type of problem and whether for respondent, family members, or both

Whether Filipinos are discriminated against in the United States
- In which ways

Whether respondent expects discrimination to be a serious problem personally
Whether respondent expects assistance in the United States from:
- Embassy

— Church
— U.S. government agencies
— Employer
— Friends in the United States
— Relatives in the United States
— Relatives in the Philippines
Which person/agency will give most help
— Type of help expected
Whether expecting to apply for U.S. citizenship
— Why or why not
Whether expecting to return to the Philippines for visit
Whether expecting to return to the Philippines to live permanently
— Why
Things that will be missed when respondent leaves
Things that respondent is looking forward to in the United States

APPENDIX 2

STATUS ADJUSTERS SURVEY (SAS): SUMMARY OF QUESTIONNAIRE

Human Resource Inventory

Education obtained in home country/other country
Education obtained in the United States
Job experience in home country/other country
Job experience in the United States
Professional or technical certification
Self-rating of job skills

Immigration History and Immigration Potential

Status at first entry into the United States
History of departures and arrivals, changes in status
Reasons for change from nonimmigrant to immigrant status
Spouse, children, and parents: location and status
Other immediate relatives: location and status
Plans for petitioning of relatives

Labor Force and Community Impacts

Description of any investments and business ownership in the United States
If employer: type of business, capital investment, number and type of employees, income
If employee: industry/business in which employed, job classification, length of employment, income
Residential history in the United States: where resided, how long, why moved
Use of public services or entitlement programs: which used, duration
Plans for future changes in employment or business activity

Adaptation and Settlement

Nature of problems encountered in the United States: language, jobs, housing
Long-term plans regarding naturalization, home purchase, retirement in home country or the United States

Personal Data

Age, sex, marital status

REFERENCES

Arnold, Fred, Benjamin V. Cariño, James T. Fawcett, and Insook Han Park

1989 Estimating the immigration multiplier: An analysis of recent Korean and Filipino immigration to the United States. *International Migration Review* 23(4):813-838.

Arnold, Fred, Urmil Minocha, and James T. Fawcett

1987 The changing face of Asian immigration to the United States. In James T. Fawcett and ~~Benjamin~~ V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands,* pp. 105-152. New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

Asis, Maruja

1990 *To the United States and into the Labor Force: Occupational Expectations of Filipino and Korean Immigrant Women.* Papers of the East-West Population Institute, No. 117 (forthcoming). Honolulu: East-West Center.

Bouvier, Leon F., and Anthony J. Agresta

1987 The future Asian population of the United States. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands,* pp. 285-301. New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

Boyd, Monica

1971 Oriental immigration: The experience of the Chinese, Japanese and Filipino population in the U.S. *International Migration Review* 5(1):48-60.

1974 The changing nature of central and Southeast Asian immigration to the United States, 1961-1972. *International Migration Review* 8(4): 507-519.

Caces, M. F. F. (Fe)

1985 Personal networks and the material adaptation of recent immigrants: A study of Filipinos in Hawaii. Ph.D. dissertation, University of Hawaii.

1986-87 Immigrant recruitment into the labor force: Social networks among Filipinos in Hawaii. *Amerasia* 13(1):23-38.

Cariño, Benjamin V.

1987 The Philippines and Southeast Asia: Historical roots and contemporary linkages. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands,* pp. 305-325. New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

1979 Migration and regional development: The Bicol region. In Robin J. Pryor (ed.), *Migration and Development in Southeast Asia: A Demographic Perspective,* pp. 251-258. Kuala Lumpur: Oxford University Press.

De Jong, Gordon F., Ricardo G. Abad, Fred Arnold, Benjamin V. Cariño, James T. Fawcett, and Robert W. Gardner

1983 International and internal migration decision making: A value-expectancy based analytical framework of intentions to move from a rural Philippine province. *International Migration Review* 17(3): 470–484.

Eviota, Elizabeth U., and Peter C. Smith

1984 The migration of women in the Philippines. In James T. Fawcett, Siew-Ean Khoo, and Peter C. Smith (eds.), *Women in the Cities of Asia: Migration and Urban Adaptation*, pp. 165–190. Boulder: Westview Press.

Fawcett, James T., and Fred Arnold

1987 Explaining diversity: Asian and Pacific immigration systems. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands*, pp. 453–474. New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

Fawcett, James T., Benjamin V. Cariño, and Fred Arnold

1985 *Asia-Pacific Immigration to the United States: A Conference Report.* Honolulu: East-West Population Institute, East-West Center.

Fawcett, James T., Benjamin V. Cariño, Insook Han Park, and Robert W. Gardner

1990 Selectivity and diversity: The effects of U.S. immigration policy on immigrant characteristics. Paper presented at the Annual Meeting of the Population Association of America, Toronto, May.

Flieger, Wilhelm, Brigida Koppin, and Carmencita Lim

1976 *Geographical Patterns of Internal Migration in the Philippines: 1960–1970.* UNFPA-NCSO Population Research Project. Manila: National Census and Statistics Office.

Gardner, Robert W., Benjamin V. Cariño, and Fred Arnold

1981 Place perception and migration intentions. Paper presented at the Annual Meeting of the Population Association of America, Washington, D.C., March.

Immigration and Naturalization Service (INS), U.S. Department of Justice

1966-77 *Annual Report: Immigration and Naturalization Services.* Washington, D.C.: U.S. Government Printing Office.

1978–88 *Statistical Yearbook of the Immigration and Naturalization Service.* Washington, D.C.: U.S. Government Printing Office.

International Labor Office (ILO)

1987 *Yearbook of Labor Statistics.* Geneva.

Keely, Charles B.

1973 Philippine migration: Internal movements and emigration to the U.S. *International Migration Review* 7(2):177–187.

Koo, Hagen, and Eui-Young Yu

1981 *Korean Immigration to the United States: Its Demographic Pattern and Social Implications for Both Societies.* Papers of the East-West Population Institute, No. 74. Honolulu: East-West Center.

Lasker, Bruno

1969 *Filipino Immigration.* New York: Arno Press and New York Times. Reprint of 1931 edition published for American Council, Institute of Pacific Relations. Chicago: University of Chicago Press.

Levine, Daniel B., Kenneth Hill, and Robert Warren (eds.)

1985 *Immigration Statistics: A Story of Neglect.* Washington, D.C.: National Academy Press.

Lind, Andrew W.

1967 *Hawaii's People.* Honolulu: University of Hawaii Press.

Minocha, Urmil

1987 South Asian immigrants: Trends and impacts on the sending and receiving societies. In James T. Fawcett and Benjamin V. Cariño (eds.), *Pacific Bridges: The New Immigration from Asia and the Pacific Islands,* pp. 347-373. New York: Center for Migration Studies in association with the East-West Population Institute, East-West Center.

National Census and Statistics Office (NCSO), Republic of the Philippines

1983 *1980 Census of Population and Housing.* Manila.

National Economic and Development Authority (NEDA), Republic of the Philippines

1982 *1982 Philippine Statistical Yearbook.* Manila.

National Science Foundation (NSF)

1980 *Scientists and Engineers from Abroad, 1976-78.* Surveys of Science and Resources Series. Washington, D.C.

Okamura, Jonathan, and Richard Coller

n.d. *The Social Adjustments of Filipino Non-migrants and Emigrants to Hawaii.* Collaborative Report of the Clinical Research Branch, National Institute of Mental Health, Rockville, Maryland, and Institute of Behavioral Sciences, Honolulu, Hawaii.

Park, Insook, James T. Fawcett, Fred Arnold, and Robert W. Gardner

1990 *Korean Immigrants and U.S. Immigration Policy: A Predeparture Perspective.* Papers of the East-West Population Institute, No. 114, Honolulu: East-West Center.

Pernia, Ernesto M.

1976 The question of the brain drain from the Philippines. *International Migration Review* 10(1):63-72.

1977 *Urbanization, Population Growth and Development in the Philippines.* Studies in Population and Urban Demography, No. 3. Berkeley: University of California.

Pido, Antonio J. A.

1986 *The Filipinos in America: Macro/Micro Dimensions of Immigration and Integration.* New York: Center for Migration Studies.

United Nations (UN)

1988 *1986 Demographic Yearbook.* New York.

United Nations Educational, Scientific, and Cultural Organization (UNESCO)

1972 [UNESCO] *Statistical Yearbook 1972.* Paris.

Zosa, Imelda

1975 Movers in Bicol. Research report prepared for the International Development Research Center, Ottawa.

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M. Ismael Khin Maung

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ABSTRACT Using data from the 1973 and 1983 censuses of Burma and the 1983 Survey of Children Ever Born/Children Surviving (CEB/CS), this study applies indirect estimation techniques to yield consistent estimates of mortality and fertility in Burma for the intercensal period. The startling decline in child mortality suggested by the analysis is consistent with the extension of medical and public health systems throughout the country during the 1960s and 1970s. A longitudinal analysis of child mortality in urban areas, using data from the partial census of 1953, indicates a threefold decline in child mortality as indexed by a Brass-type estimate of the probability of dying by age 5 (q_5). Life expectancy probably increased by about 3.5 years during the 1973–83 decade, to about 53.5 years. As expected, mortality was lower in urban and lowland areas than in the rural areas and highlands.

The total fertility rate (TFR) indicated by the 1983 survey data was 4.8 children per woman. Rural TFR was higher than urban (5.2 versus 3.4), and regional differentials were similarly pronounced, ranging between 3.7 for Rangoon Division and 5.4 for Magwe Division. These differentials were consistent with socioeconomic conditions of the regions. Fertility was high in the North and West, whereas the Central Plains, the Delta, and the Eastern Plateau region had low to intermediate levels.

Estimates of crude birth rates based on three independent methods—comparison of death rates and intercensal growth rates, reverse survival, and direct calculation from the 1983 CEB/CS Survey—were impressively similar, around 34 births per 1,000 population. The reverse-survival crude birth rates were converted into equivalent TFRs using the fertility schedules derived from the 1983 CEB/CS Survey data, corrected for one-half year of age displacement. Comparison with the TFRs computed directly from the survey showed a close correspondence between the two. The regional rankings by these two sets of TFRs were also similar. The estimates suggest a TFR of about 4.7 and a crude birth rate of about 34.7 in 1980.

The fertility trend cannot be ascertained directly owing to a lack of longitudinal fertility data. But comparison of reverse-survival crude birth rates indicate a slight downward trend, attributable on one hand to a shift in the female age structure brought about by the entry into the reproductive ages of the small cohort born during the chaotic period of World War II and Burma's postindependence civil war and, on the other, to a rise in female age at marriage, rather than to a decline in marital fertility.

The overall quality of the 1973 and 1983 census age distributions was found to be quite good. A modified version of the Demeny–Shorter correction technique was used to isolate variations due to age misreporting. The analysis revealed that the female age structure of the 1970s, which resulted from the small birth cohorts of World War II and the civil war, favored a lower crude birth rate and caused the proportion of the population under age 10 in 1983 to be lower than in 1973.

INTRODUCTION

The population of Burma[1] has undergone conspicuous structural changes during the years of social and economic reorientation introduced by the military government that came to power in 1962. The regime's policies had the effect of spurring population growth during the 1960s and 1970s. International migration virtually ceased except for the emigration of the foreign population in the 1960s and perhaps a trickle of emigration by dissident native-born Burmese. The cause of the rapid population growth was a sharp decline in mortality, especially child mortality, due to the transformation of the public health and medical systems.

Demographically, Burma ranks as the twenty-fifth largest country on the globe; but with a land area of more than 676,581 square kilometers, it has the lowest population density in the Indo-Chinese peninsula. Its population numbered about 4 million around the first quarter of the nineteenth century (Burney 1842). The most recent census, conducted in 1983, recorded a total population of 35.3 million, and much of the increase occurred between 1962 and 1973 (Maung 1986: 6–7).

The country's major demographic problem is not population pressure due to rapid growth but rather the maldistribution of population. As a result of insurgencies in the countryside and the unavailability of basic services outside the primate city, there has been an influx of population into Rangoon[2] and its environs in recent years.

Geographic, Cultural, and Political Setting

Spanning the largest land area in peninsular Southeast Asia, Burma shares a 4,355 kilometer-long common boundary of rugged highlands with India and Bangladesh in the west and with China in the north. In the Eastern Plateau it borders Laos and Thailand, and in the south its 3,226 kilometer coast is bounded by the Indian Ocean. Burma's major river, the Irrawaddy, flows from north to south, almost bisecting the country. This distinctive geographic feature of Burma makes east–west population movements difficult under the present level of technology, and historically it has been a major factor in limiting Burmese contacts with the rest of the world. The Irrawaddy Delta is one of the largest paddy-producing regions in Southeast Asia, and Burma's small population size makes it one of the few rice-surplus countries in the region.

The population of Burma is predominantly Mongolian in racial origin. It is made up of several distinct ethnic and religious groups. The major ethnic group is the Burmese, constituting 69 percent of the population, according to the 1983 census. Other ethnic groups are the Shan (8.5 percent),

---

[1] In 1989 the name of the country was changed to Myanmar.

[2] In 1989 the name of the capital was changed to Yangon.

Karen (6.2 percent), Rakhine (4.5 percent), Mon (2.4 percent), Chin (2.2 percent), Kachin (1.4 percent), Kayah (0.4 percent), and those classified as other indigenous groups (0.1 percent). The census classified the remaining 5.3 percent of the population as "foreign races (including mixed Burmese and foreign)" (Union of Burma: 1983b:21). The religions practiced in Burma are Theravada Buddhism (89.4 percent of the population); Christianity, mostly Baptist (4.9 percent); Islam (3.9 percent); Animism, a pre-Buddhist religion (1.2 percent); and Hinduism (0.5 percent) (Union of Burma 1983b: 22). Theravada Buddhism is also found in Cambodia, Laos, Thailand, and Sri Lanka, whereas Mahayana Buddhism is more common in China, Japan, Tibet, and Vietnam.

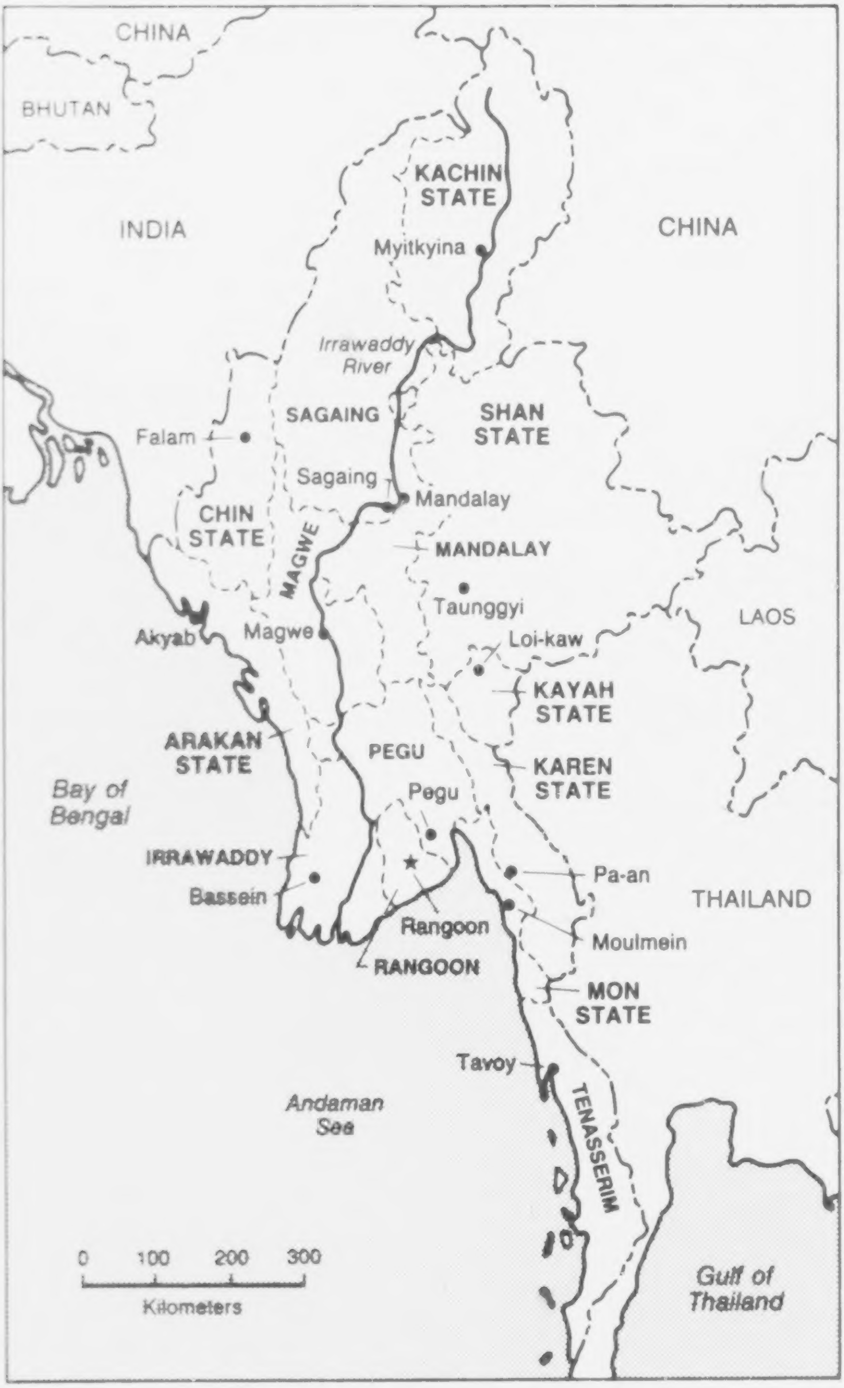
Social organization in Burma ranges from tribal to metropolitan types among the various ethnic groups. The country's low level of technology limits interaction between ethnic groups, thereby making economic and social integration at the regional and national levels difficult.

Buddhism as a cultural influence dates back to 250 B.C. A more recent influence has been British colonialism, which began in parts of Burma during the first quarter of the 19th century. By 1886 the entire country had been annexed and added to India; and in 1937 Burma became a separate British colony. It fell from British control during the Japanese invasion of 1941 and remained occupied by the Japanese until the Allied victory of 1945. Burma's struggle for independence after World War II led to the creation of an independent sovereign republic on 4 January 1948.

Modern Burma is divided administratively into seven states and seven divisions (Figure 1). States and divisions have basically the same functions, the chief distinction between them being that each state represents an area in which a national minority constitutes the local majority, whereas the divisions have no such communal basis. The seven states, located in mostly mountainous or rugged coastal areas, are named after the seven dominant ethnic minorities: the Kachin, Chin, Karen, Kayah, Shan, Rakhine (formerly called Arakanese), and Mon (or Talaing). The divisions, in contrast, occupy the central plains of the Irrawaddy River and its delta.

The social structure and economy of the country are still largely rural and agricultural. Rice exports constitute the major source of foreign exchange earnings. More than two-thirds of the population depend on agriculture for their livelihood. The remaining third is engaged in wholesale and retail trades (11.4 percent); manufacturing (9.2 percent); services (6.7 percent); transport, storage, and communication (2.9 percent); and construction (1.3 percent) (Union of Burma: 1983b: 32). Burma's per capita income in 1986 was approximately $210 (Houghton Mifflin 1990: 164).

Burma today remains a closed society. The military government is secretive and does not readily release information to the outside world. But the major obstacle to investigators attempting to assess the status and dynamics of Burma's population is the general lack of demographic survey data.


CHINA
BHUTAN
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KACHIN STATE
CHINA
Myitkyina
Irrawaddy River
SAGAING
SHAN STATE
Falam
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MAGWE
MANDALAY
Taunggyi
LAOS
Akyab
Magwe
Loi-kaw
KAYAH STATE
ARAKAN STATE
PEGU
KAREN STATE
Bay of Bengal
Pegu
IRRAWADDY
Pa-an
THAILAND
Bassein
Rangoon
Moulmein
RANGOON
MON STATE
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Gulf of Thailand

Figure 1. States and divisions of Burma

The population censuses are therefore the primary source of demographic information.

Population Censuses

Fortunately, Burma is unusually endowed with an abundance of historical statistical data. It is one of the few countries in the region to have a series of decennial censuses dating back to the latter part of the 19th century. The first, nonsynchronous, census was taken in 1872 in parts of the country then known as British Burma, which included the Arakan, Delta, and Tenassarim regions; but the published data from that census are too crude to be useful for serious demographic analysis or indirect estimation. The first synchronous census was conducted in 1881, and thereafter the population was counted every 10 years until World War II. Although a census was conducted in 1941, with the spread of the war into the Pacific and the evacuation of the British government to India, all the information collected was said to be lost during the evacuation, except for provisional totals by sex at the division and district levels.

A period of civil war followed independence, and therefore the first postwar census had to be taken in three stages over the period from 1953 to 1955. The first stage was planned for all urban areas, the second for rural areas containing more than 2,000 villages and representing about 15 percent of the rural population, and the third, which was planned for completion in 1955 but never conducted, for the remaining rural areas. The 1953 and 1954 censuses were tabulated and analyzed, and together they reported a population of 5.6 million inhabitants out of the total estimated population of 19 million in 1953–54.

After a lapse of 20 years, the Revolutionary Government took the first postwar country-wide census in 1973 under the authority of the census act of 1972. The census is said to have enumerated all but about 5 percent of the population, but only the most basic demographic, social, and economic data were collected. By contrast, the census of 1983 collected information on fertility and mortality from a 20 percent systematic sample. A postenumeration check (PEC) survey done in 1984 indicated an acceptable level of accuracy for the 1983 census (Union of Burma 1983b: 43–44).

Population Growth and Distribution

According to early estimates by British administrators, Burma has long been sparsely populated. Census data indicate that the population grew at a rate of only slightly more than 1 percent during the colonial period (Maung 1986: 6). Owing to the influenza epidemic of 1918–19, the census of 1921 recorded the lowest intercensal growth rate. Immigration, mainly from India and China, and natural increase contributed to population growth prior to World War II. The United Nations has estimated growth rates for Burma after the war to be low to modest (UN 1964: 152). The rate of growth rose to about 2 percent during the 1960s.

Table 1. Population densities and average annual growth rates, by state and division: Burma, 1973–83

State/division	Population (000s) 1983	Population (000s) 1973	Area (sq. km)	Density 1983	Density 1973	Annual growth rate (%)
Union total	35,308	28,921	676,581	52	42	2.0
Shan State	3,717	3,180	155,801	24	20	1.6
Rakhine State	2,046	1,713	36,778	56	47	1.8
Mon State	1,680	1,314	12,297	137	107	2.5
Karen State	1,055	858	30,383	35	28	2.1
Kachin State	905	738	89,042	10	8	2.0
Chin State	369	323	36,019	10	9	1.3
Kayah State	168	127	11,733	14	11	2.9
Irrawaddy Division	4,994	4,157	35,139	142	118	1.8
Mandalay Division	4,578	3,669	37,024	124	99	2.2
Rangoon Division	3,966	3,189	10,171	390	314	2.2
Sagaing Division	3,862	3,119	94,626	41	33	2.1
Pegu Division	3,800	3,180	39,404	96	81	1.8
Magwe Division	3,243	2,635	44,820	72	59	2.1
Tenasserim Division	917	719	43,344	21	17	2.4

Source: Union of Burma (1983c: Tables 2 and 3).

The first major immigration stream during the colonial period consisted of Indian laborers who came via sea from the Indian subcontinent. The Indian migrants preferred Burma to Malaysia or the East Indies because wages were higher, living conditions were better, and, most importantly, it was a comparatively short haul from India (Adas 1974: 101–102) A comprehensive statistical analysis of the Indian immigration to Burma during the colonial period is found in Baxter (1941).

A second immigration stream originated in the southwestern rural areas of China across the frontier regions into northern Burma. A characteristic difference between the Indian and the Chinese immigrants was that, whereas the former were temporary, the latter tended to be permanent settlers, and in time many of them were assimilated into the Burmese culture.

Marked regional contrasts are evident in the population densities but not in the growth rates based on the 1973 and 1983 censuses (Table 1). The observed density pattern is historic and reflects the country's geographic features and the pattern of urbanization. The highlands tend to be thinly settled, whereas the lowlands and central plains are more populous. The region of highest population concentration is the Rangoon Division owing to the presence there of Rangoon, the national capital and primate city. Comparison of the percentage distribution of population with that of land area

Table 2. Percentage distributions of population and land area, by state and division: Burma, 1973 and 1983

State/division	Population 1983	Population 1973	Area
Union total	100.0	100.0	99.9
Shan State	10.5	11.0	23.0
Rakhine State	5.8	5.9	5.4
Mon State	4.8	4.5	1.8
Karen State	3.0	3.0	4.5
Kachin State	2.6	2.6	13.2
Chin State	1.0	1.1	5.3
Kayah State	0.5	0.4	1.7
Irrawaddy Division	14.1	14.4	5.2
Mandalay Division	13.0	12.7	5.5
Rangoon Division	11.2	11.0	1.5
Sagaing Division	10.9	10.8	14.0
Pegu Division	10.8	11.0	5.8
Magwe Division	9.2	9.1	6.6
Tenasserim Division	2.6	2.5	6.4

Source: Union of Burma (1983c: Tables 2 and 3).

in the states and divisions of Burma (Table 2) also reveals some unevenness in population distribution.

The regional population growth rates between 1973 and 1983 were all positive and loosely clustered about the national average of 2.0 percent per year (Table 1). Most of the regional differentials reflected variations in rates of natural increase, the amount of interregional migration being miniscule. Even Rangoon Division, with the primate city as a magnet, had a growth rate barely above the national average. The regional density pattern therefore is not likely to be eroded by regional growth differentials for some time.

Data and Methodology

For the analysis that follows, I have relied primarily on data from the censuses of 1973 and 1983, and also on data from a 20 percent sample of census households in 1983 who used a long form consisting of 18 questions. Most of the data from the sample survey relate to children ever born and children surviving (CEB/CS). This information was provided by females 15 years old and older in response to questions about the number of live births they had had, the number of their children still living, and the date of birth of the last child. The sampling technique was a one-stage, stratified, replicated, systematic sampling method (Union of Burma 1983b: 40).

The lack of reliable vital statistics in Burma has mandated the use of indirect estimation techniques for estimating infant and child mortality, birth rates, and total fertility rates, and of model life tables for estimating the true age distribution of the population.

The numerical computations were done with a PC-MATLAB (matrix laboratory), Version 3.1-PC, interactive program for MS-DOS on a personal computer. The program, which is copyrighted by MathWorks, Inc., is a scientific spreadsheet for numeric matric computations.

Unless otherwise indicated, the Coale-Demeny (1968) model life table system used in the analysis is based on the program "MODEL" prepared by Barbara Vaughn of the Office of Population Research, Princeton University. For the Brass mortality estimations, I have used the MCPDA, MS-DOS, Version 6/7/85. This software is an adaptation of the U.S. Census Bureau's Computer Programs for Demographic Analysis for use on MS-DOS based microcomputers prepared by Jorge del Pinal and issued by Westinghouse Public Applied Systems, Columbia, Maryland.

MORTALITY

In less developed countries, where the hazards of life are great in the early years of life, deaths of infants and young children make up a large fraction of the total deaths. Having accurate information about infant and childhood mortality is essential to understanding the structure and dynamics of such populations. Childhood mortality levels and patterns are also useful to public health administrators because such measures are sensitive to the changes in a nation's health environment and medical system. General mortality, as indexed by the expectation of life at birth, depends also on the incidence of death among persons over 5 years of age. Accordingly, the analysis of mortality in this section focuses first on adult mortality and then on child and infant mortality in Burma between 1973 and 1983.

Trends in the Death Rate

Knowledge about mortality conditions in Burma remains fragmentary even at present owing to the lack of reliable data. The vital registration system in Burma initially operated in the territory under British administration, known as British Burma, during the latter part of the 19th century, and was gradually extended to other areas. By 1907 the system encompassed more than 80 percent of the Burmese population. Statistics on deaths are available dating back to 1864, but they are limited and defective, and therefore do not provide a reliable assessment of past mortality levels and trends. However, it is possible to reconstruct mortality trends for Burma as a whole since the latter part of the 19th century, using data from the decennial censuses, which are of reasonably good quality, and by applying indirect mortality estimation models. Such an investigation should yield a general picture of the mortality situation over a period of 100 years or so and thereby greatly improve our understanding of the historical mortality conditions in Burma.

Using available vital statistics to study the broad trend in death rates, Sundrum (1957:19) has shown that mortality declined somewhat in Burma during the first half of the 20th century after reaching its highest peak during the worldwide influenza epidemic of 1918-19. This pattern is consistent with the experience of many countries, which also experienced sharp rises in their crude death rates during the epidemic and substantial declines afterward. Probably the gradual diffusion of Western medicine and public health measures and the development of the delta rice frontier after the British began their occupation of Burma were among the major factors in lowering the death rate of the general population toward the close of the 19th century. Also not to be overlooked are major world events such as the opening of the Suez Canal in 1869, which had a positive effect on Burma's foreign trade through the colonial nexus. This in turn stimulated growth in the newly created cash economy based on rice (Adas 1974). These developments increased the general prosperity of the people, which in turn improved their nutritional level and reduced the risk of mortality during the first half of the 20th century.

Mortality statistics for a selected number of towns indicate that the death rate fell precipitously beginning in the late 1950s (Maung 1986:24). Although this apparent trend was consistent with the general mortality decline in developing countries to low modern levels in the postwar period, in Burma's case it must be substantiated with more reliable data. The official crude death rate of 10 per thousand for urban areas in 1978 may be too low.

An investiation of Burmese mortality conditions in the 1973-83 intercensal period should shed light on postwar mortality levels and trends. The data I have employed for this purpose are from the two censuses, and the methods of analysis used are principally those of indirect estimation rather than conventional techniques. Models of indirect mortality estimation typically use implicit mortality data, such as the cross-sectional age-sex distribution or retrospective survey data on numbers of children ever born and surviving classified by five-year age groups of mothers. Those are the two principal types of data used in this analysis. The mortality estimation process focuses first on the mortality of persons over age 5 and then on early childhood and infant mortality.

Mortality over Age 5

The intercensal survivorship method, which uses successive census age distributions as input data, is perhaps the oldest and most respected approach to the estimation of adult mortality in a population. The theory behind the method is that, when the effects of migration, territorial changes, and errors of age reporting are negligible, a reliable estimate of mortality above age 5 can be obtained from the intercensal survivorship probabilities and a single index of mortality level, such as expectation of life at age 5, can then be derived. The method is sensitive to errors, however, particularly those of age misreporting and changes in the census coverage, which would tend to conceal a population's true pattern of mortality. Hence, even if migration is negligible, the census survival rates are likely to show an erratic instead of a neat theoretical pattern of nonlinear decline with age.

Table 3 displays the observed intercensal survival ratios for the 1973-83 intercensal period with their equivalent mortality levels in the Coale-Demeny "West" model life tables. The mortality levels corresponding to the survival ratios were obtained by linear interpolation between levels. High survival ratios imply favorable mortality conditions (i.e., high life expectancy). Assuming that there are no errors in the reported age distribution and that the mortality pattern underlying it conforms to the "West" model, one would expect to find the same mortality level in each age group. For example, if the "West" model level 12 were assumed to represent mortality during 1973-83, then life expectancy at birth would have been 47.5 years, which is higher than that of the prewar value of about 30.8 years (Davis 1951:64). The interpolated levels of mortality implied by the census survival ratios suggest that the young and the old both experienced better mortality conditions than those of intermediate ages (15-40), a pattern resembling the Coale-Demeny "North" model.

The picture is somewhat different for males, however, whose survival ratios display more anomalies and data errors than those of females. The implied levels for male cohorts of ages 5-9 and 10-14 in 1973 are too low to be compatible with the corresponding cohorts of females. The discrepancy is too large to be due to a sex differential in mortality alone. For ages above 15, however, the male-female patterns appear consistent—with one exception, in the 25-29 age group, where the survival chances of males appear too high.

The preliminary conclusion that emerges from an examination of the data in Table 3 is that, although the survival ratios are affected by systematic reporting biases and other errors, the fluctuations are much less severe than would be expected in the age-sex distribution of a developing country such as Burma. In only one instance, that of males 0-4 years old in 1973, does the census survival ratio exceed unity.

Two other distortions deserve attention. First is the very low 10-year survival ratios for males from ages 5-14 in 1973 to ages 15-24 in 1983, which obviously are underestimates. Similarly, the high survival ratios for males from ages 15-29 in 1973 to ages 25-39 in 1983 are also unlikely. A plausible explanation for this anomaly may be that males were underenumerated between ages 15 and 24 in both censuses; but given the low level of mobility in Burma, it could not be the full explanation of male deficits at those ages.

Another distortion in the survival ratios is that, in the three age groups between 15 and 29 in 1973, the female survival ratios are below those of males. Initially one may be inclined to attribute it to the higher risk of fe-

Table 3. Census age distributions and 10-year survival ratios, by sex: Burma, 1973–83

	Enumerated population (000s)				Survival ratios			
	1973		1983					
Age in 1973	Males	Females	Males	Females	Males	"West" level	Females	"West" level
0-4	2,128	2,106	2,268	2,234	1.0241	—	.9921	21[a]
5-9	1,976	1,953	2,216	2,173	.9334	7	.9685	14
10-14	1,762	1,719	2,179	2,090	.9138	6	.9750	17
15-19	1,443	1,488	1,844	1,891	.9452	14	.9406	12
20-24	1,136	1,173	1,610	1,676	.9398	14	.9257	12
25-29	884	911	1,364	1,400	.9443	16	.9147	11
30-34	815	849	1,067	1,086	.8788	10	.8983	11
35-39	795	800	835	833	.8757	12	.8972	12
40-44	731	739	717	763	.8679	14	.8992	14
45-49	580	579	696	718	.8448	16	.8728	14
50-54	517	526	634	665	.7710	14	.8198	14
55-59	387	394	490	506	.6560	12	.7138	12
60-64	324	338	399	431	.5953	15	.6608	15
65-69	215	232	254	281	.4611	15	.5003	13
70+	271	312	367	439	.2759	22	.3165	22
Total (median)	13,964	14,119	16,940	17,186		(14)		(13.5)

Sources: Union of Burma (1973: 12-13; 1983b: 29-30).

a. This and subsequent calculations involving the Coale-Demeny regional model life tables are based on the program "MODEL" developed by Barbara Vaughn at the Office of Population Research, Princeton University.

male mortality associated with pregnancy and childbirth at those ages. But Burma's progress in the provision of prenatal and postnatal health care and also increased female literacy and education in Burma during the 1960s and 1970s suggest this is only part of the explanation, as female levels for 15–29 are below the median female level. Possible male underenumeration in 1973 that exaggerated male survival rates at those ages may also be partly responsible. Sex ratios by age, presented in the section on age distribution, tend to confirm the hypothesis of male underenumeration in the reproductive ages.

Yet another distortion is the implausibly high survival ratios obtained for ages 70 and higher, which presumably are a result of age exaggeration among older people, a widespread tendency in many cultures.

In sum, the small magnitude of observed distortions in census survival ratios gives one reason to regard the overall quality of the Burmese census age-sex data as good for use in mortality estimation.

British and Indian actuarians have constructed life tables for Burma from successive censuses by first mathematically smoothing the age-sex distributions before calculating the survival ratios (Davis 1951: 238–242; Vaidyanathan 1931). A different method is used to estimate adult mortality in the present study, however, namely that of projection and cumulation (UN and NRC 1983: 208–212). The method involves projecting forward the initial census population (1973) to the date of the second census (1983), using a range of mortality levels from a suitable system of model life tables, such as the Coale-Demeny system. (Alternatively, the 1983 population may be reverse-projected to 1973.) The projected population is then cumulated for each mortality level, and the observed population at the second census is also cumulated. The level of mortality that would produce the observed number of persons of age x and higher is interpolated for each age x ($x = 10, 15, 20, \ldots$). The median of the interpolated sequence of mortality levels is accepted as an estimate of intercensal mortality.

Because the method uses cumulative data, it is less sensitive to age-misreporting errors, since the cumulation irons out the errors somewhat. Nevertheless, there are two limitations that one must be aware of when interpreting the results. The first is that, because the cumulation is performed for the second census and not the first, the estimates may still be subject to errors inherent in the former census. The second is that the method is predicated upon the assumption that the two censuses are equal in completeness of enumeration. Thus, if the initial census were undercounted by several percentage points whereas the second were complete, then the obtained estimate would be upwardly biased and the estimated mortality would be too high. The reverse would hold if the initial census were complete but the second were undercounted by several percentages. The assumption of equal completeness of enumeration cannot be tested, however, because a series of three or more censuses does not exist for the postwar period.

The survival ratios for forward projection used in the current analysis were taken from the Coale-Demeny "West" family model life tables. The "West" model is an amalgam of life tables based on the mortality experience of countries with reasonably good vital statistics. The choice of regional pattern has little bearing on the results when the estimation is restricted to mortality above age 5. But if early child mortality were extrapolated from the estimated mortality of those over age 5, the choice of regional pattern would be likely to affect the results. One reason is that the four regional patterns in the Coale-Demeny system have been differentiated on the basis of the relation between infant and childhood mortality on the one hand, and adult mortality on the other. The "North" pattern is characterized by low infant mortality, low mortality above age 50, and high mortality in the middle adult ages; the "South" pattern, by high infant mortality and even higher mortality between ages 1 and 4 years; and the "East" pattern, by high infant mortality and high mortality over age 60. The "West" pattern characterizes countries with good mortality statistics but which show no systematic pattern of deviation from the average of the countries analyzed.

The final outcomes of applying the projection and cumulation method to the Burmese censuses are displayed in Table 4. These results are encouraging because the estimated expectation of life at age 5 varies little over the age segment, which is what ought to happen if the theory and the data are both acceptable. The range for males is 52.5 to 55.1 and that for females is 55.7 to 58.2, giving a spread of less than three years in each case. Such variation is not surprising and may be due to the persistence of age errors. The estimates also imply a sex differential in mortality of about two years. If these ranges are accepted, then the medians—54.4 years for males and 56.4 years for females—may be taken as representative of the mortality level among the population over age 5 in Burma during the 1973-83 period; and they correspond to the median mortality levels of 13.66 and 13.32, respectively, in the Coale-Demeny system of "West" model life tables.

An experimental calculation based on the variable-*r* method proposed by Preston and Bennett (1983) and using five-year age distributions from the two censuses yielded results impressively close to those reported. Specifically, the median mortality levels obtained by this method were 13.2 and 13.4 of Coale-Demeny "West" model family for males and females, respectively. This method did, however, yield a slightly higher mortality level for females than did the projection-cumulation method. The method is described and illustrated in United Nations and National Research Council (1983: 218-222).

By definition, the 10-year survival probabilities cannot be computed for

Table 4. Life expectancies at age 5 in "West" model life tables corresponding to the proportion of males and females surviving to ages *x* and higher in 1983 from ages *x*-10 and higher 10 years earlier: Burma

	Level of mortality		Life expectancy at age 5	
Age	Males	Females	Males	Females
10	14.07	14.57	55.17	58.18
15	12.14	13.38	52.48	56.45
20	12.74	13.29	53.35	56.32
25	13.68	12.84	54.65	55.69
30	13.69	12.90	54.66	55.78
35	13.63	13.08	54.58	56.04
40	13.33	13.35	54.17	56.34
45	13.94	13.84	55.00	57.02
Median	13.66	13.32	54.38	56.37

Sources: Union of Burma (1973: 12-13; 1983b: 29-30).

persons born after the 1973 enumeration; hence the estimate of mortality from census age distributions refers to mortality from approximately age 5 onward. The missing indices of mortality under age 5 may be obtained either by extrapolating the adult mortality segment or by using other data obtained independently. Extrapolation generally yields poor and inappropriate estimates of child mortality, especially when there is uncertainty about the mortality pattern of the studied population or when child mortality has changed rapidly during the recent past. Therefore, this approach is inappropriate because both conditions exist in the present case.

The child survival data from the 1983 CEB/CS survey can be used to estimate mortality indices below age 5 by means of the Brass technique of indirect child mortality estimation. A completed intercensal life table can be obtained by splicing together the two sets of independent estimates.

Mortality of Children 0–5

The technique for estimating child mortality from child survivorship data was developed by Brass (Brass et al. 1968: 104–119) and is now well established in the repertory of indirect estimation techniques. The fundamental idea behind this technique is that the proportion dead among children ever born to women in a given five-year age group i, D_i, is related to the life table probability of dying between birth and some exact childhood age x, $q_x = 1\text{-}l_x$, where l_x is the number of persons who attain age x out of the original cohort of l_0 births (taken as unity or 100,000) and represents the outcome of the risk of death to which all children born to this group of women are exposed during their lives. The period of exposure (x) is related to the difference between the age of mothers at the time of giving birth to these children and the mothers' current age, a difference that is also a function of the age pattern of fertility. That is, in populations where childbearing begins early, children are exposed to the risks of death longer than in populations where childbearing begins at later ages. Obviously, x varies with the age of women and must lie between 0 and the age of the oldest child if none has died. This hypothetical age distribution of children under zero mortality is the same as the distribution of childbearing by mothers in age group i, or the pattern of fertility up to that age group. Brass used the third-degree polynomial function of fixed shape but variable age location to represent this hypothetical age distribution. Using the logit life tables generated by the General Standard and a female stable population with a growth rate of 2 percent as the mortality and age distribution components in the estimation equation, Brass derived a set of multipliers for converting the observed D_i into q_x estimates. The multipliers are selected on the basis of the earliness of childbearing indexed by the ratio of the average parity of women of ages 20–24 to 25–29 (P_2/P_3).

The Brass estimation model is predicated upon two assumptions, constant mortality and fertility and the independence of maternal mortality from child mortality. The technique is robust in regard to the model assumptions, but it is subject to errors in the survey data. For example, the tendency to underreport deceased children more than living ones would downwardly bias the estimates. Hence, the estimates of mortality from D_i are considered to be minimum estimates. Such biases would be inconsequential in the study of differential mortality where the objective was to discern the pattern of group variation rather than estimate true levels using the assumption of equal reporting in the subgroups. But they should be kept in mind when interpreting the level of child mortality in the subgroups. Estimates of infant mortality, q_1, derived from D_1 are based on reports of mothers 15–19 years of age and estimates for ages 10 or more are based on reports of mothers above age 35; for a number of reasons, both are regarded as suspect (Brass et al. 1968: 118). The estimates q_2, q_3, and q_5 derived from the reports of mothers between 20 and 34 years of age, however, are considered to be the most reliable of the set. Following the standard practice, I have used q_5 as an index of early childhood mortality in my own analysis. Additionally, the use of q_5 is considered appropriate for regional comparisons because of the differences in earliness or lateness of childbearing between regions, which may be a source of bias.

The Brass technique has been applied successfully to a wide variety of populations for which vital statistics are scarce or of doubtful quality. It is a fairly sophisticated tool of demographic estimation. Two refinements of the original procedure were developed by Sullivan (1972) and Trussell (1975), who gave slightly more flexible sets of multipliers than those developed by Brass. Unless otherwise noted, in the presentation of my analysis I use the first of the two sets of multipliers developed by Trussell. Differences between results obtained from the two sets of Trussell multipliers were negligible.

The results of applying the Brass technique to data from Burma are given in Table 5, in which it can be seen that the reported proportions dead rise almost linearly with age of women in urban and rural areas. The level of consistency is impressive, suggesting low levels of respondent error in reporting about children ever born and living in the 1983 CEB/CS survey. The high level of internal consistency of the survey data provides a solid basis for placing confidence in the estimates.

The q_x values in Table 5 display striking contrasts in child mortality among Rangoon, other urban areas, and rural areas. The mortality differentials reflect the urban bias in health services and modern medical facilities, as well as the more favorable socioeconomic conditions that exist in the cities. High mortality among rural Burmese children has been noted in public health studies. For example, Feldhake (1954) estimated that about 40 percent of children in rural areas died before reaching the age of 6 owing to Burma's high incidence of gastrointestinal diseases, which are generally transmitted through infected water. The q_5 index of child mortality reveals

Table 5. Children dead as a proportion of children ever born reported by mothers of ages 15–49 and estimates of q_x for Rangoon City, other urban, rural, and union total populations: Burma, 1983

Age		Rangoon City		Other urban		Rural		Union total	
Woman (*i*)	Child (*x*)	D_i	q_x	D_i	q_x	D_i	q_x	D_i	q_x
15–19	1	.055	.059	.060	.065	.091	.099	.085	.092
20–24	2	.072	.077	.080	.085	.107	.113	.101	.107
25–29	3	.079	.081	.100	.102	.131	.134	.122	.125
30–34	5	.094	.097	.121	.123	.153	.158	.144	.148
35–39	10	.109	.112	.144	.148	.175	.181	.165	.171
40–44	15	.133	.135	.172	.174	.205	.208	.194	.198
45–49	20	.157	.159	.200	.202	.227	.231	.218	.221

Sources: Union of Burma (1983a: 78–81; 1983b: 203–204).

the expected urban-rural variations in probability of dying before age 5. Higher levels of female literacy and education, better preventive and curative medical facilities and sanitation, and fewer social constraints on the use of health services in urban areas because of the higher educational level there are presumably among the major factors associated with better child survivorship in urban areas, particularly in the primate city, as compared with rural areas.

Trends in Early Child Mortality

As the 1973 census did not obtain information on lifetime fertility or mortality, no longitudinal data exist to probe the contemporary trends in early child mortality for the whole country. But such trends can be estimated indirectly by making intrasurvey comparison of the mortality indices derived from the estimation technique already described. If child mortality were declining, then the estimated mortality levels associated with various q_x values would refer to the level prevailing in the past y number of years. One can therefore convert each q_x estimate into a standard q value, q_5, implied in a given mortality level for the intrasurvey comparisons. The plot of q_5 so obtained against the reference dates would give an estimate of the rough trend when mortality was declining approximately in linear fashion.

Using the Coale-Demeny "West" model life tables, I converted each q_x into a standard q_5 and reference date of each q_x estimated, and then inferred the variation of standard q_5 values over the reference dates as indicative of the trend in child mortality (Table 6). For details of the calculation method, see United Nations and National Research Council (1983: 76–81). It is gratifying to see that the trend of the standard q_5 values is quite systematic and downward for Burma as a whole and each subdivision, indicat-

Table 6. Trends in the probability of dying before age 5, q_5, converted from q_2, q_3, q_5, q_{10}, and q_{15} via Coale-Demeny "West" model life tables and associated mortality levels: Burma, 1972-81

Age group	Reference date[a]	Rangoon City		Other urban		Rural		Union total	
		Level	q_5	Level	q_5	Level	q_5	Level	q_5
20-24	1981.2	18.1	.091	17.5	.101	15.7	.135	16.0	.128
25-29	1979.4	18.3	.088	16.9	.111	15.1	.146	15.6	.136
30-34	1977.3	17.8	.096	16.3	.123	14.7	.155	15.1	.146
35-39	1975.0	17.5	.102	15.6	.136	14.3	.163	14.7	.154
40-44	1972.3	16.7	.115	14.9	.150	13.6	.178	14.0	.169
Mean (over reference period)		17.7	.098	16.2	.124	14.7	.155	15.1	.147
Mean (over 1977.3-1981.2)		18.1	.092	16.9	.112	15.2	.145	15.6	.137

Sources: Union of Burma (1983a: 78-81; 1983b: 203-204).

a. Dates have been estimated by the equation: $t_x = a_i + b_i(P_1)/P_2) + c_i(P_2/P_3)$ where P_1, P_2, and P_3 are average parities of females 15-19, 20-24, and 25-29 years old; and a_i, b_i, and c_i are coefficients developed by Coale and Trussell (UN 1983: 78). Reference dates given in this table are means of reference dates for subdivisions. Because the survey took place on 1 April 1983, the dates were obtained by subtracting the mean reference period obtained by the equation from 1983.25.

ing a decline in child mortality at least since 1977. If the trend is accurate, then for all Burma the probability of dying before one's fifth birthday declined about 14 percent between 1977 and 1983, from .146 to .126. The decline was substantially greater in urban areas outside Rangoon City than in rural areas (30 versus 11 percentage points); but in Rangoon it was about 21 percent, somewhat less than in other urban areas, which may have been due partly to later childbearing in the capital. Declining child mortality and its corollary, improved child survival, have at least two implications. One is a higher population growth rate over time. This is easily seen, for the survival of more children to age 5 implies the survival of more adults to parenthood, and hence the potential for the future birth rate to increase. A second implication of gains in child survival is an increase in the number of dependents, which may reduce an already low level of living in the absence of rapid economic development.

If the trends in Table 6 are accepted as accurate, the next question is, what accounts for the reduction in child mortality? In the absence of adequate data, one can only speculate on the answer by examining economic and social trends likely to bear on mortality and morbidity. The pace of development in Burma was slow in all segments of the economy during most of those years (Arumugam 1976: 173). Agricultural production was barely able to keep pace with population growth, and the gross domestic product remained below that of the prewar (1938–39) level until 1975–76, when it reached U.S. $59 (Steinberg 1981: 77, 112). Therefore economic development, which is often found to be an indirect cause of improved child survival, does not apply in the present case. Burma is still at the low end of the world economic spectrum; although the national income has been more equally distributed under the socialist economy of the military government, per capita income is still too low for most families to afford private medical and other health services after meeting their basic subsistence needs.

Despite its lagging economic achievements, Burma has made progress in providing modern health and medical services to all sectors of the population. Prior to independence, modern curative and preventive medicine, health education, and sanitation were available mainly to urban residents. The rural population relied upon practitioners of folk medicine known as *se saya*, who in turn relied upon astrology to make their diagnoses. By the late 1950s, however, the medical system was coming increasingly under the control of the Burmese government, which considered it a patriotic duty to improve the health status of the people, rather than leaving that responsibility to local authorities or the private sector.

The 1960s and 1970s saw a major expansion of Burma's medical and paramedical systems to previously neglected areas. The government began to deprivatize medical services and pharmaceutical production and distribution in 1962, and in the same year nationalized the educational system. Rapid progress in literacy and education, due in part to mass literacy campaigns, was another important factor in facilitating the diffusion of knowledge and the practice of modern hygiene. In 1978 the government began a new health program, called the People's Health Plan, to bring simple primary health services to rural areas and small towns in accordance with the developmental plan's objective to narrow the gap betwen rural and urban areas in the availability of health services (Union of Burma 1977a). Under the plan, volunteer health workers were trained and sent back to their villages to provide health care services.

The available health statistics, displayed in Table 7, are sketchy, but they reveal evidence of accelerating growth in the number of health personnel and institutions between 1953 and 1976. This was a remarkable achievement, given the budgetary and other constraints under which the government had to operate. The number of rural health centers nearly doubled, increasing from 555 in 1963 to 1,077 in 1976. The number of maternal and child health (MCH) centers also increased, though more modestly, over the same period, from 194 to 285. According to the occupational data from the 1983 census, by that year Burma had 9,402 physicians, surgeons, and dentists (8,310 in urban and 1,092 in rural areas); 21,887 nurses and midwives

Table 7. Growth of health institutions and personnel: Burma, 1953–76

Institutions/personnel	1953	1963	1973	1974	1975	1976
Institutions						
Hospitals	u	239	410	427	436	487
Dispensaries	u	97	228	246	251	291
Health centers						
Rural	u	555	972	1,012	1,014	1,077
Urban	u	u	44	48	51	54
MCH centers	u	194	241	258	275	285
School health teams	u	20	35	37	45	49
Personnel						
Physicians	u	1,789	4,127	4,445	4,671	4,887
Dental surgeons	u	28	134	146	193	231
Nurses	530	1,451	3,039	3,270	3,591	3,801
Midwives	1,740	3,757	8,583	9,138	9,706	10,142
Lady health visitors	u	485	861	889	894	1,013
Health assistants	u	556	926	973	969	990

Source: Union of Burma (1977b: 101).
u—data unavailable.
MCH—maternal and child health.

(12,619 in urban and 9,268 in rural areas); and 8,320 medical technicians (5,863 in urban and 2,457 in rural areas). The growth in the number of physicians and surgeons serving the rural areas between 1973 and 1983 (from 174 to 1,092) is also noteworthy. The decline in child mortality suggested by the intrasurvey comparisons appears plausible in view of these trends.

On the preventive side, Burma also made some advances in environmental sanitation, sanitary water supply, immunization, family and child health care, the deployment of female health visitors, and the eradication of such vector-borne diseases as malaria and encephalitis. The eradication of malaria, malnutrition, pulmonary tuberculosis, anemia, and tetanus received top priority in government programs (Union of Burma 1975).

The data in Table 7 thus indicate a sustained and solid improvement in Burma's public health and medical systems during the 1960s and 1970s, in contrast with the preceding two decades. Coupled with the improvements in education and literacy, this more favorable health environment probably led to the decline in infant and early childhood mortality.

Trends in Urban Child Mortality

For urban areas, a more precise assessment of child mortality trends can be made for the period since independence by means of a longitudinal comparison of Brass-type estimates based on the 1953 and 1983 CEB/CS surveys. The comparison yields the following results:

		1953			1983		
Age of women (i)	Age (x)	q_x	"West" mortality level	Ref. date	q_x	"West" mortality level	Ref. date
20–24	2	.266	8.0	1950	.083	17.4	1981
25–29	3	.305	7.3	1948	.097	17.3	1979
30–34	5	.339	7.3	1946	.116	16.8	1977.5

The most impressive aspect of the results is the very substantial decline in child mortality (q_x) among women in all three age groups. Thus, the low single-digit mortality levels characterizing child mortality in the 1940s were radically changed to healthy double-digit levels by the late 1970s and early 1980s. The probability of dying by ages 2, 3, and 5 was reduced to one-third by the late 1970s, which implies an averge annual decline in child mortality of about 2 percent. Most of the reduction presumably took place after 1962. This reduction was a remarkable achievement, especially in the absence of concomitant economic development, and demonstrates how effective modern medical and public health technology, combined with advances in literacy and education, can be in reducing mortality.

The estimates of child mortality derived from the 1953 CEB/CS survey data portray a rather dismal picture of the child survival situation in Burma at that time, which contrasted with the mortality decline that many developing countries were experiencing. A stable population incorporating the mortality pattern of the Coale–Demeny "West" region, level 8, and growing annually at 2 percent implies a crude death rate of about 28 per thousand population, which is even higher than the crude death rate of 20.4 per thousand estimated to have characterized Burma during the prewar years (Sundrum 1957: 17).

World War II and Burma's subsequent political turmoil were partly responsible for the extremely unfavorable child survivorship of that period. The ravages of the war in Burma were second only to those in Japan. Large urban areas of the country were devastated and many people left homeless. During the Japanese occupation, vast areas of land were left uncultivated, and in the tropical climate they quickly reverted to jungle. Medical and sanitation equipment was removed from the country (Horwood 1956: 2), and health and medical services were neglected. Sanitary conditions were terrible. The scorched-earth policy of the British and the Japanese during their respective retreats left roads and bridges destroyed and the economy in disarray.

The first large-scale public health program in the postwar years was undertaken in the early 1950s with aid from the United States. But postwar reconstruction was slowed by the civil war that followed independence.

The communist insurgencies in the countryside caused thousands of people to flee from rural areas to the more secure and politically more stable urban centers. These refugees, together with the Indians who returned to Burma after having fled during the Japanese invasion, created new social and public health problems in the urban areas (Sundrum 1957: 32). The congestion, food and housing shortages, poor sanitation, and lack of medical services that characterized Burmese cities in the postwar years undoubtedly contributed to the high child mortality. The 1953 CEB/CS findings confirm the worsened living conditions in postwar urban Burma.

Regional Variation in Child Mortality

Because child mortality affects population growth, regional differences in child mortality contribute to regional population growth differentials. As expected, given the cultural and economic diversity among Burma's geographic regions, the 1983 census revealed considerable regional variation in the probability of dying among children. Using the q_5 estimate to index child mortality, Table 8 shows the probability of dying by age 5, which averaged .146 (or 146 children per 1,000 children under age 5), to range from a low of .103 in Rangoon Division to a high of .207 in Rakhine State. The q_5 values were generally higher in the highland regions of western and northern Burma than in the rest of the country. That pattern is plausible because malaria, which is considered to be the country's number one public health enemy, is endemic to hill tracts and sparsely populated areas.

Within each region, the reported proportions of dead children were also directly related to the ages of women (data not shown). This finding implies that the 1983 CEB/CS data are internally consistent at the regional level, rendering the regional-level estimates of child mortality more credible.

By using the Coale–Demeny "West" model life tables together with the reference dates to which the q_5 values refer, it is possible to derive regional standard values of q_5 converted from q_2, q_3, q_{10}, and q_{15} (Table 9). The reference dates are the means for all the regions combined. The q_5 values reveal a downward trend in child mortality in all regions since 1972, although the extent of decline varied by region. In Kayah State the trend was somewhat erratic, but the fluctuation may have been due to sampling error because the sample size was small owing to the state's small population size. A clear impression that emerges from Table 9 is that all regions have shared in the decline of child mortality.

There is excellent agreement among all the standard q_5 indices with respect to their regional rankings, which suggests, among other things, that the pattern of regional differentiation in child mortality may be of long standing. It reaffirms the earlier finding that child mortality tends to be higher in upland areas and lower in the lowlands.

To derive an estimate of child mortality, q_5, for all Burma during the intercensal decade, I averaged the standard values based on q_2, q_3, and q_5.

Table 8. Probabilities of dying between birth and age x, q_x, estimated by the Trussell method from reported proportions of children dead among children ever born to women of ages 15–44, by state and division: Burma, 1983

State/division	q_1	q_2	q_3	q_5	q_{10}	q_{15}
Union total	.089	.109	.125	.146	.168	.195
Shan State	.075	.092	.111	.132	.143	.173
Rakhine State	.110	.147	.179	.207	.234	.264
Mon State	.051	.074	.087	.113	.135	.164
Karen State	.044	.069	.100	.125	.155	.185
Kachin State	.123	.143	.167	.202	.232	.268
Chin State	.102	.136	.146	.177	.193	.227
Kayah State	.077	.105	.107	.132	.147	.154
Irrawaddy Division	.086	.102	.117	.135	.156	.178
Mandalay Division	.087	.113	.128	.144	.170	.200
Rangoon Division	.053	.075	.086	.103	.117	.139
Sagaing Division	.119	.143	.159	.183	.207	.239
Pegu Division	.064	.091	.107	.126	.151	.175
Magwe Division	.106	.130	.142	.162	.185	.211
Tenasserim Division	.086	.111	.117	.139	.164	.201

Source: Union of Burma (1983b: 160–183; 187–202).

This yielded a child mortality level of .139 for both sexes combined, with a mean reference date of 1978.8—which, incidentally, is close to the midpoint of the intercensal period 1973–83. Since this estimate of child mortality has about the same reference period as that for adult mortality based on intercensal survial ratios, I used it to construct an all-Burma spliced life table for the 1973–83 decade.

Infant Mortality and Life Expectancy

Urban–rural and regional infant mortality rates and life expectancy associated with the q_5 estimate of child mortality obtained by the Trussell method (Trussell 1975), together with the reference dates to which they refer, are given in Table 10. These measures refer to the same reference period as the q_5 measure, namely 1977, which is about the midpoint of the intercensal period.

The urban–rural differentials in infant mortality are as expected: lowest in the primate city of Rangoon and highest in rural areas. Despite the government's expansion of maternal and child health programs to rural areas, a large differential in infant mortality still existed between urban and rural areas in 1983.

Regional contrasts are also striking. The infant mortality rate averaged

Table 9. Trends in the probability of dying before age 5, q_5, converted from q_2, q_3, q_5, q_{10}, and q_{15} by means of Coale-Demeny "West" model life tables, by state and division: Burma, 1972–80

	q_5, by maternal age group and reference date					
State/division	20–24 1980.5	25–29 1978.8	30–34 1977	35–39 1974.4	40–44 1972	Mean for 1977–80.5
Shan State	.107	.121	.132	.131	.149	.120
Rakhine State	.174	.196	.207	.215	.230	.192
Mon State	.086	.094	.113	.124	.142	.098
Karen State	.080	.109	.125	.142	.160	.105
Kachin State	.169	.182	.202	.213	.233	.184
Chin State	.160	.159	.177	.177	.197	.165
Kayah State	.123	.116	.132	.135	.133	.124
Irrawaddy Division	.119	.127	.135	.143	.154	.127
Mandalay Division	.133	.139	.144	.156	.173	.139
Rangoon Division	.087	.093	.103	.107	.120	.094
Sagaing Division	.169	.173	.183	.190	.208	.175
Pegu Division	.106	.116	.126	.138	.151	.116
Magwe Division	.153	.154	.162	.170	.183	.156
Tenasserim Division	.130	.127	.139	.150	.174	.132

Source: Union of Burma (1983b: 160–183; 187–202).

.101 nationally and ranged from a low of .074 for Rangoon Division to a high of .139 for Rakhine State. Among the 14 regions, nine showed infant mortality below the national level. Again the highland-lowland dichotomy seen with child mortality held for infant mortality as well.

A similar estimate of urban infant mortality based on data from the 1953 CEB/CS survey yields a value of .225, which implies an impressive decline of nearly two-thirds (to .082) in about three decades. The official rate for urban areas based on vital registration from 155 towns for 1976 was .0472, or 47.2 per thousand live births, which is about half of the .082 value estimated from the 1983 CEB/CS survey. Therefore, even for a selected number of towns, the official rate is suspect and presumably reflects substantial underregistration of infant deaths (Union of Burma 1977a: 25).

The regional estimates of infant mortality are low for a country that has not yet experienced significant economic and technological advances. The estimates, however, lend support to the speculation that the declines in infant mortality may be associated in part with the increased numbers of trained midwives, female health visitors, and health assistants since 1962. Advances in literacy and educational levels may have also played a part in lowering mortality levels. Unfortunately, data are not available for exploring the effects of each factor, however.

Table 10. Infant mortality rates and life expectancies at birth associated with q_5 based on women of ages 30–34 and Coale–Demeny "West" model life tables, by state and division: Burma, 1983

State/division	Life expectancy at birth (both sexes)	Infant mortality rate	Reference date
Union total	53.5	.101	1977
Rangoon City	60.1	.070	1977.4
Other urban	56.4	.087	1977.2
Rural	52.5	.107	1976.9
Shan State	55.3	.092	1977
Rakhine State	46.8	.139	1976.6
Mon State	57.7	.081	1977
Karen State	56.2	.088	1976.7
Kachin State	47.3	.135	1977.4
Chin State	49.9	.121	1977.2
Kayah State	55.3	.092	1976.7
Irrawaddy Division	54.8	.095	1976.8
Mandalay Division	53.9	.100	1977
Rangoon Division	59.1	.074	1977.2
Sagaing Division	49.4	.124	1977
Pegu Division	56.0	.089	1976.9
Magwe Division	51.7	.111	1976.9
Tenasserim Division	54.4	.097	1977.1

Source: Based on Table 8.

A difference of nearly four years in life expectancy between the primate city and other urban places and also between other urban places and rural areas is implied by the estimates. Life expectancy for urban areas estimated from the 1953 CEB/CS survey showed a significant increase of 23 years, from 34.5 to 57.5 years. A rather large variation in life expectancy at birth for both sexes combined is evident among regions as well. A range of more than 12 years is indicated between Rakhine State, with the lowest estimated e_0 (46.8 years), and Rangoon Division, with the highest (59.1 years). As expected, it is generally lower in the highlands and sparsely populated regions than in the lowlands.

General Mortality

The spliced life table may now be used to derive the expectations of life at birth and the crude death rate around 1977-78. The central death rates under age 5 (${}_5m_0$), the number of person-years lived under age 5 in the life table with radix 1 ($_5L_0$), and the proportion surviving to exact age 5 (l_5) were first determined for both sexes by using the average of the three q_5 estimates converted from q_2, q_3, and q_5 from the Coale-Demeny "West" regional model life tables. In the absence of any clue to the pattern of sex differentials in child mortality, it has been necessary to assume that males and females share the same level of child mortality in the Coale-Demeny system. I obtained this level from the tabulated l_x (i.e., $1-q_x$) values given in the United Nations and National Research Council's Manual X (UN and NRC 1983: 271) and calculated the expectation of life at birth by the formula:

$$e_0 = {}_5L_0 + l_5 \cdot e_5$$

where $_5L_0$ and l_5 are obtained from the spliced life table, or equivalently from the Coale-Demeny "West" model life table determined on the basis of q_5. The crude death rates were obtained by using the age-specific death rates for ages 5 and over ($_5m_x$) from the spliced life table and the average intercensal population by five-year age group. The summary indices obtained are as follows:

Indices	Male	Female	Total
$_5L_0$	4.3927	4.4752	—
l_5	.8516	.8694	—
$_5m_0$	.0338	.0292	—
m_{85+}	.3011	.2813	—
e_5	54.6	56.4	55.5
e_0	52.9	56.2	54.5
CDR	14.6	13.3	14.0

$_5m_0 = (l_0 - l_5)/{}_5L_0$; and $m_{85+} = l_{85}/T_{85}$.
$e_0 = {}_5L_0 + T_5 = {}_5L_0 + l_5 \cdot e_5$.

As explained in the section on regional variation in child mortality, I created the intercensal life table used for the analysis by splicing together the two age sectors, under 5 and over 5 years, of two distinct model life tables from the "West" region of the Coale-Demeny system, which were extracted on the basis of heterogeneous data sources. The census age distributions yielded the over 5 age segment, or "adult" mortality; and the Brass-type estimate of child mortality, q_5, from the CEB/CS survey provided the under 5 age segment of the life table. The child mortality level obtained for both sexes ($q_5 = .1388$) was 15.5 (UN and NRC 1983: 282).

The expectation of life at birth and the death rate obtained when child mortality is extrapolated from intercensal adult mortality rather from the spliced life table are 49.7 and 15.5, respectively. The differences between the two e_0 values and the two death rates are substantial, and they are consistent with the earlier findings of declines in child mortality during the recent past. The differences also suggest that although substantial improvements in child mortality were achieved in the recent past, the decline in adult mortality was sluggish.

AGE DISTRIBUTION

Age reporting in Burma is generally considered to be better than in many other developing countries. Even in rural areas, where adult literacy is low, people generally know their ages and dates of birth because the latter are important for astrological purposes. The 1983 postenumeration check, the first of its kind in Burma, showed that the total enumeration of the population and the age data obtained from the census were good (Union of Burma 1983b: 43–45).

Even during the prewar years, the age data for Burma were considered to be more reliable than those for India. The colonial commissioner of the 1901 census asserted that "Burmese age returns are better than in any other Province—not far behind those of many European countries" (Lowis 1902: 48). Nevertheless, it would be misleading to assume that the age data for Burma are free of reporting errors and other biases. This section investigates the accuracy of the Burmese age-sex data from the 1973 and 1983 censuses and attempts to give an estimate of the true age distribution by adapting a procedure devised by Demeny and Shorter (1968) that adjusts for age misreporting in an age distribution by five-year age groups.

Accuracy of Age Data

The acquisition of accurate age and sex data is an important objective of any modern national census. Data on the age-sex structure of the population constitute the most fundamental demographic information. For administrators they provide the basis for social and economic planning; and for demographers, age is a key variable in analyses of fertility, mortality, nuptiality, and migration. When vital statistics are absent, scanty, or defective, the use of census age distributions in conjunction with demographic models becomes necessary for estimating vital rates. The existence of reliable age data considerably expands the potential for demographic description of less developed nations.

The age data from any census enumeration contains various kinds of errors and biases to a greater or lesser degree, depending on the administrative and statistical sophistication of a country and on individuals' knowledge of their ages. Age errors are of two major types. One is the coverage error due to omission or double counting. Examples are the omission of infants under age 1 and the undercount of males in early adult ages. Such errors generally give rise to deficiencies that are age- or sex-specific. The second type of error stems from falsification, misreporting, or guessing of age by the respondent or the enumerator. Enumerators tend to base their estimates of age on observable characteristics, such as the marital or parity status of respondents. The practice of guessing by both respondents and enumerators gives rise to the concentration of reported ages having certain terminal digits (often 0 or 5), which is known as age heaping, or digit preference. This type of error is different from errors due to the deliberate overstatement or understatement of age, the effect of which is to transfer recorded ages across age boundaries. Because its effects tend to offset each other, net misreporting may be less than gross misreporting.

The Burmese censuses have secured information on age by asking a direct question about the ages of persons in the household. The 1973 census schedule also included a question about dates of birth. The definition of age has varied among the censuses, however. The censuses of 1881, 1911, 1921, and 1983 defined age as the number of years completed, whereas those of 1891, 1901, 1931, and 1953–54 defined it as the age at nearest birthday. The latter definition coincided with the local custom of age reckoning.

Single-Year Age Distribution

Age heaping at certain digits is generally noticeable in single-year age distributions of national censuses. The degree of heaping varies among nations and among subgroups within a nation by literacy, education, or income level. People who who do not know their exact ages have a propensity to use rounded numbers in estimating them.

Age heaping was examined in Burma during colonial times by the census commissioners. The commissioner of the 1911 census made the following observation about digit preference:

> Although there is still a preference for the ages which are multiples of 10 and 5, it is not nearly so marked as in the other provinces [presentday India, Pakistan, and Bangladesh] and the remaining numbers, odd and even, are in something more like their natural order, though there is still perhaps some preference for the final figure 2 (Webb 1912: 156).

Figure 2, which plots the single-year age distributions of the 1973 and 1983 censuses of Burma for both sexes combined, reveals age heaping at ages ending in 0 and 5 in both censuses, but surprisingly it was much more pronounced in the 1983 than in the 1973 census. The normal expectation is for age reporting to improve over time. One plausible explanation for this apparent deterioration of Burmese respondents' knowledge of their ages is that the 1973 census schedule included questions on both current age and date of birth, whereas the 1983 schedule did not. The request for information on date of birth not only minimized guessing on the part of the enumerators and respondents but also permitted census statisticians to adjust the age data for reporting consistency.

A similar finding was reported by Young (1904) in his study of the single-year age distribution of the United States prior to 1900. He compared the

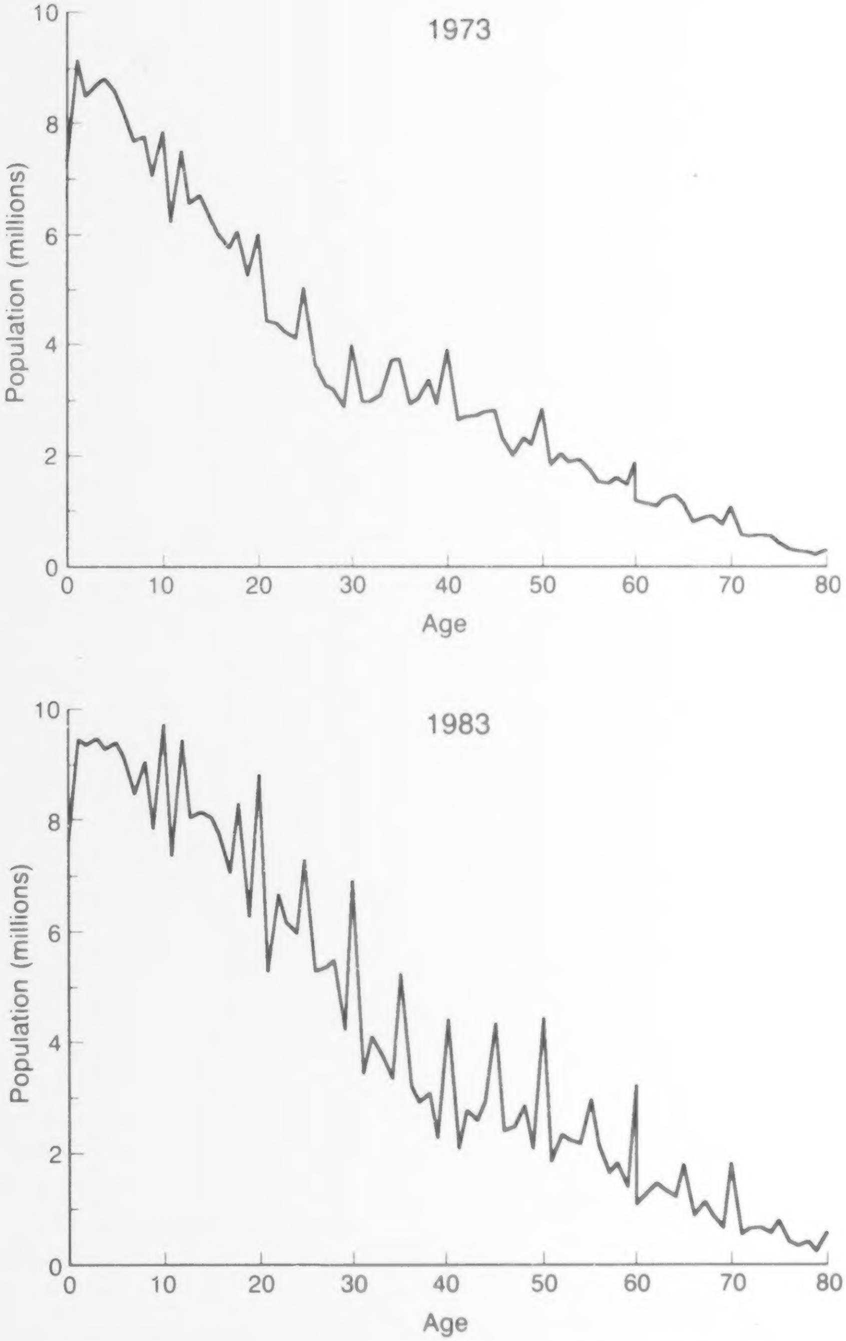

Figure 2. Single-year age distributions for union total population: Burma, censuses of 1973 and 1983

Sources: Union of Burma (1973: 24–37; 1983b: 23–28).

1900 data with those of earlier censuses and showed that, owing to the inclusion of a date-of-birth question in the 1900 census, its single-year age distribution was less distorted than those of earlier censuses.

The true pattern of age heaping in Burma during recent decades can be discerned therefore from an examination of the 1983 unadjusted age data. Figure 3 shows a marked tendency for both sexes to heap their ages at multiples of 5 and 10, particularly after age 15, and the heaping tendency becomes stronger with advancing age. Heaping at ages ending in 0 is stronger than at those ending in 5, making the ages ending with 1 and 9 the least reported. The data reveal little difference in digit preference between males and females, and also little indication of age heaping for children, which may be due to less guessing because children's birth dates are more recent.

Among the tests for measuring age heaping are the Myers, the Whipple, the Bachi, the Carrier, and the Ramachandran indexes (Shryock and Siegel 1973: 204–208). Because Myers's test is simpler and easier to perform than the others, the Myers index is used most frequently by demographers. It is based on the assumption that, if ages are reported correctly, then the expected total population at each terminal digit (called the "blended" population) should be 10 percent of the total for all ages. The deviations from 10 percent indicate the extent of rounding to a particular digit. A summary index is formed by taking one-half the sum of the absolute deviations from 10 percent. This index shows the minimum percentage of persons reporting ages having incorrect final digits. The theoretical range of this index is 0 to 90.

The results of applying Myers's test to Burmese age data confirm the inference of age heaping drawn from Figure 3. Positive deviations appear only at digits 0 and 5, and large negative deviations occur for digits 1 and 9 (Table 11). The proportion of males using 0 as a terminal digit to report their ages in 1983 was 41 percent larger than expected, and for females it was 48 percent larger. The Myers index was 7.0 for males and 7.9 for females in 1983, both of which were higher than in Thailand or Malaysia but lower than in the Philippines or Indonesia.

Underenumeration of Infants

Underenumeration of children under 1 year of age is a widespread and serious problem in most census age distributions, particularly those of less developed countries. Many infants are either omitted altogether or reported as being 1 or 2 years old. That is, the number is depleted either by omission or by being transferred to ages 1 and 2; and since 0 is the first age recorded, the reductions at this age cannot be compensated for by a shift in reported ages from a younger age group.

One simple and effective test for measuring the extent of infant underenumeration is to compare the ratio of children under 1 year (P_0) to those between 1 and 4 years (P_{1-4}) with a similar ratio in a model stable popula-

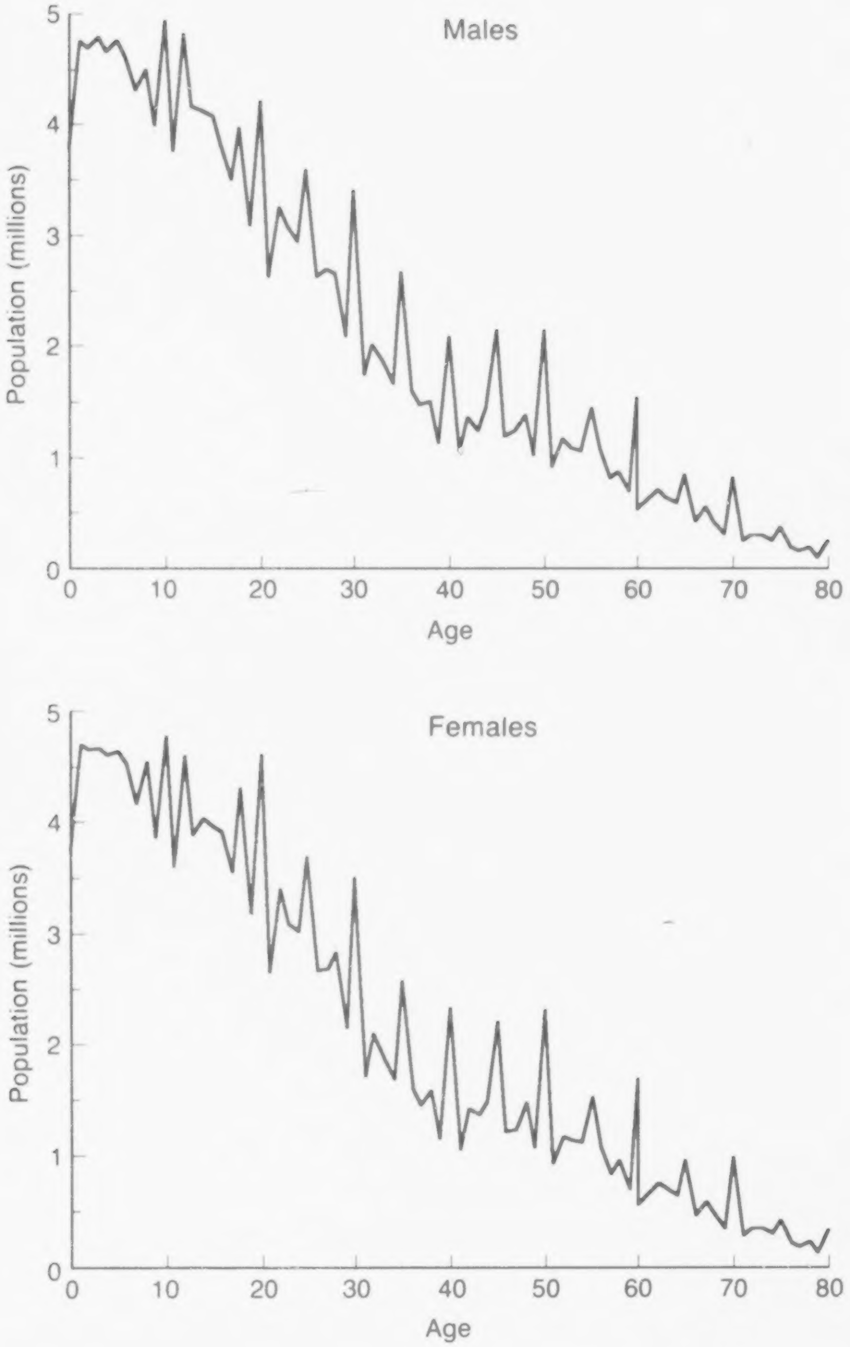

Figure 3. Single-year age distributions, by sex: Burma, census of 1983
Source: Union of Burma (1983b: 23-38).

Table 11. Preference for age digits, by sex: Burma, censuses of 1973 and 1983

Census and digit	Percentage Males	Percentage Females
1973		
0	12.2	12.3
1	8.9	8.8
2	9.6	9.5
3	9.6	9.8
4	10.5	10.5
5	11.2	11.0
6	9.4	9.3
7	9.3	9.2
8	10.0	10.3
9	9.3	9.3
Total	100.0	100.0
Myers index	3.9	4.1
1983		
0	14.1	14.8
1	7.5	7.3
2	9.8	9.8
3	9.4	9.3
4	9.6	9.5
5	12.8	12.6
6	9.3	9.2
7	9.3	9.0
8	10.1	10.5
9	8.1	8.1
Total	100.0	100.0
Myers index	7.0	7.9

Sources: Union of Burma (1973: 24-37; 1983b: 23-28).

tion. The divergence between the two provides a clue to the degree of underreporting at age 0 (i.e., less than one year). In a stable population growing at an annual rate of 2 percent and subject to the mortality pattern of the "West" model level 13 life table from the Coale-Demeny system, the ratio of infants to children expected is 0.290 for males and 0.289 for females.

Table 12 shows the comparisons between expected and observed ratios from census data for the total, Rangoon, all urban, and rural populations of Burma in 1973 and 1983. As can be seen, the observed ratios are

Table 12. Ratios of observed number of infants under age 1 to observed number of children at ages 1–4 and deviation of the ratios from stable population ratios, expressed as percentages (in parentheses), for urban and rural areas: Burma, 1973 and 1983

Area	1973		1983	
	Males	Females	Males	Females
Union total	.2057 (29)	.2058 (29)	.2003 (31)	.2007 (31)
Rangoon	u	u	.2309 (20)	.2272 (21)
Urban	.2260 (22)	.2268 (22)	.2173 (25)	.2172 (25)
Rural	.1994 (31)	.1995 (31)	.1958 (32)	.1968 (32)

Sources: Union of Burma (1973; 1983a: 36–39; 1983b: 23–24).
u—data unavailable.

lower than the expected by about one-third, suggesting high rates of omission of infants in all population categories. The census ratios are far too low to be due to declining fertility over a period of five years before the census. Furthermore, the urban–rural differences are consistent with the hypothesis of age misreporting and omission—that is, the ratios are higher in rural than in urban areas. A fertility decline, in constrast, would have yielded lower ratios for urban areas than for rural areas. Moreover, the ratio for Rangoon is higher than that for all urban areas. This result again is consistent with the hypothesis of omission and misreporting. The findings provide strong evidence of infant underenumeration in Burma.

Sex Ratios

A simple way to evaluate a grouped age–sex distribution is to use sex and age ratios. Grouping tends to smooth out the irregularities of single-year age data caused by random and nonrandom errors and thus to lessen the effect of age heaping on demographic estimation. But other errors, such as age misstatement, overcounting, undercounting, and the residual errors from digit preferences, may still linger to distort the grouped age distribution. The effects of such errors on the resulting estimates can invalidate the estimates, especially when the errors tend to cumulate during the grouping process.

The sex ratio for all Burma was 98.9 males per 100 females in 1973 and 98.4 in 1983. The feminine sex ratio observed for Burma implies, among other things, that the overall completeness of male and female enumeration has been about equal. This may be due, in part, to a high level of female literacy and a social structure in which women generally enjoy social freedom and actively participate in the economy.

In a population not affected by migration or by drastic swings in fertility and mortality, the sex ratios by age tend to vary in a predictable pattern. It normally starts around 105 at the beginning of life because of the universal tendency for males to outnumber females at birth by about 3–5 per 100, then declines gradually, reaching a balance in the middle ages, and finally declines rapidly because of lower female than male mortality at higher ages. The divergence of a particular age group from this pattern may be attributed to sex-selective reporting errors or to historical factors affecting age-sex groups differently.

The pattern of sex ratios by quinquennial age groups was basically similar for the 1973 and 1983 censuses of Burma (Table 13). The sex ratios were abnormally low between the ages of 15 and 30 for both censuses. To examine if this was due to sex-selective reporting errors, I compared the 1983 data with those from the prewar censuses (Figure 4). For this purpose I considered only the indigenous population (i.e., Buddhists and *Nat*, or spirit worshippers) of earlier censuses because the population then was heavily influenced by immigration, and I excluded the data from the 1931 census from the comparison because they had been mathematically smoothed.

Although fluctuating less than the sex-ratio patterns of the earlier censuses, the sex-ratio pattern by age for the 1983 census was broadly similar and may be accepted as the classic pattern for the Burmese population. According to colonial authorities, the pattern was due to age overstatement by married females in the 10–14 and 15–19 age groups and understatement by women in the 30–40 age groups (Grantham 1921: 145–146). This hypothesis has not been fully investigated, but the findings based on the 1983 data appear to support it. If it is accepted as valid, then the basic similarity of the 1983 pattern to the patterns of the prewar censuses implies the persistence of sex-specific age error in the postwar censuses but on a much reduced scale. The less severe fluctuations in the 1983 data may signify, among other things, improvements in reporting during the postwar years due to advances in literacy and education or even to the fact that the census was conducted under Burmese suzerainty rather than colonial auspices. Without knowing more about the sex-selectivity in the census enumeration, it is difficult to decide whether the low sex ratios between ages 15 and 30 were due to too many females reporting themselves in that age range or to male underenumeration at those ages—or both. Male underenumeration may also play a part in explaining the low sex ratios because the ages in question are precisely those during which the mobility of males is known to be greatest. But as the level of geographic mobility is low in Burma, underenumeration may be due to other factors.

A shortage of males is also apparent (Table 13) among the cohort born during World War II, i.e., between 1939 and 1943. This can be seen in the

Table 13. Age and sex ratios: Burma, 1973 and 1983

	Age ratios					
	Males		Females		Sex ratios	
Age	1973	1983	1973	1983	1973	1983
All ages					98.9	98.4
0	—	—	—	—	100.9	101.4
1	—	—	—	—	100.7	101.3
2	—	—	—	—	100.4	100.9
3	—	—	—	—	101.6	102.7
4	—	—	—	—	101.3	101.2
0–4	—	—	—	—	101.0	101.5
5–9	101.60	99.68	102.08	100.50	101.1	102.0
10–14	103.07	107.32	99.93	102.85	102.4	104.2
15–19	99.60	97.35	102.90	100.43	96.9	97.5
20–24	97.59	100.38	97.78	101.87	96.8	96.0
25–29	90.66	101.88	90.11	101.36	97.0	97.4
30–34	97.13	97.06	99.26	97.24	96.0	98.2
35–39	102.78	93.64	100.73	90.17	99.3	100.2
40–44	106.34	93.61	107.21	98.35	98.8	93.9
45–49	92.90	103.02	91.53	100.56	100.1	96.9
50–54	107.02	106.98	108.09	108.69	98.3	95.3
55–59	92.04	94.82	91.25	92.23	98.1	96.8
60–64	107.60	107.27	108.07	109.61	95.7	92.4
65–69	89.89	85.85	90.50	85.97	92.7	90.2
70–74	92.80	90.14	93.50	90.05	88.6	86.2
75+	—	—	—	—	83.7	80.8
Mean deviation	3.88	6.97	4.07	7.85	1.98	2.9
Age-sex accuracy index	13.89	23.09	—	—	—	—

Sources: Union of Burma (1973: 12–13; 1983b: 29–30).

depression at ages 30–34 in 1973, which is repeated at ages 40–44 in 1983, when the cohort has aged by 10 years. The reasons for the small male cohort are uncertain. But it suggests greater mortality of male than of female children during times of war and other social upheaval. This cohort was further exposed to adverse social and economic conditions during the civil war following Burma's independence.

The observed sex ratio for ages below 5 is biologically abnormal, however. It was even more feminine in the prewar censuses. Sundrum (1957) has explained it as due to high male infant mortality and associated it with the overall low sex ratio of the indigenous population. Using this argument, he contends that "the surplus of females in Burma starts from the first year

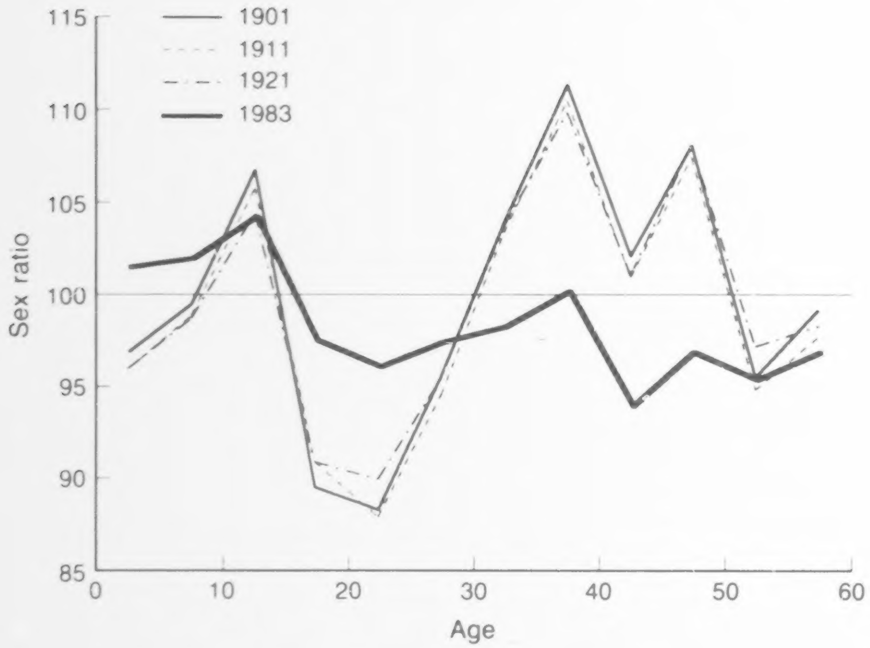

Figure 4. Sex ratios, by five-year age group: Burma, 1901, 1911, 1921, and 1983

Sources: Lowis (1902); Webb (1912); Grantham (1923); Union of Burma (1983b).

of life" (p. 28). But compared with the 1921 ratio of 95.5, the contemporary ratio is closer to the biological norm of 105 males per 100 females (Figure 4). If higher male infant mortality was indeed the cause of the abnormal sex ratio below age 5 in the prewar years, then the 1983 infant sex ratio suggests that male infants benefited more than female infants from the recent improvements in health and medical facilities. It is possible that preference for sons raised their survival probabilities. Another possibility is that parents deliberately failed to report the existence of very young male children for protective or superstitious reasons. Differential age misreporting, exaggerating male ages more than female ages, is likely to account for at least part of the pattern. Further investigation is needed to separate biological from possible cultural factors that could account for the anomalous sex ratios at early ages.

Age Ratio Analysis

An age ratio is obtained by dividing the number of persons in a particular age group by the average number in the two adjacent age groups. The age ratio score is defined as the average absolute deviation of age ratios from 1. It is computed for each sex separately. A sex ratio score is obtained by taking the average absolute first differences in sex ratios by age, and the joint age and sex ratio score is obtained by adding three times the sex ratio score to the sum of the male and female age ratio scores. This is the well-known United Nations age-sex accuracy index. The United Nations (1955) has recommended that, as a rule, an age ratio score of 2.6 for males and 2.4 for females and a joint score (the age-sex accuracy index) of 9.5 be adopted as standards for evaluating an empirical age distribution.

In theory, the age ratio for a particular age group would be unity (or 100) in the absence of reporting errors and disturbances due to fluctuations in fertility, mortality, migration, or nonlinearity of age distribution. Age ratios do deviate from unity, however, and the deviations mirror the reporting errors—net age misstatement, net differential under- or overcounting, and digital preference—and also historical events affecting birth, death, and migration rates.

It is gratifying to find that the summary indices of age accuracy for 1973 and 1983 are below the limits suggested by the United Nations (Table 13). But a close examination of variation in age ratios over age groups shows interesting divergencies; and, with two consecutive censuses, it is possible to separate the discrepancies due to reporting errors from those due to true fluctuations in past fertility, mortality, and migration. The striking similarity in the two series of age ratios (Figure 5) strongly suggests the persistence of a characteristic pattern of age misreporting in Burma. In addition, the age ratios for the cohorts born between 1943 and 1953, a period of disruption caused by World War II and the postindependence civil war, are too low in both the censuses, and hence the age ratios are cohort-specific. For this reason the low age ratios cannot be due to misreporting errors. On the contrary, the persistence of low ratios for the cohort in the succeeding census 10 years later strongly suggests the effect of depressed fertility and of inflated mortality in the past, and hence a smaller cohort than the adjacent cohorts. This cohort entered the prime reproductive ages in the early 1970s and was the key contributor to the births during the intercensal period of 1973–83.

The 1973 and 1983 census age distributions thus appear to reflect both misreporting errors and real fluctuations from the expected pattern. In general, however, the age-sex data are better than expected. At least three factors may be associated with their generally good quality: Burma's high level of literacy, the near equality of sex roles and women's high degree of social freedom, and the custom of preparing horoscopes for the newborn. Each of these factors deserves a brief discussion.

Burma's high rate of literacy and the relative freedom of Burmese women are legacies of the country's social institutions rather than the products of modernization. Many Western writers have commented on these two features of Burmese social structure (e.g., Steinberg 1982: 103–106). The 1983 census provided statistical support for those impressions, recording 82 percent of males and 71 percent of females literate. These proportions are high

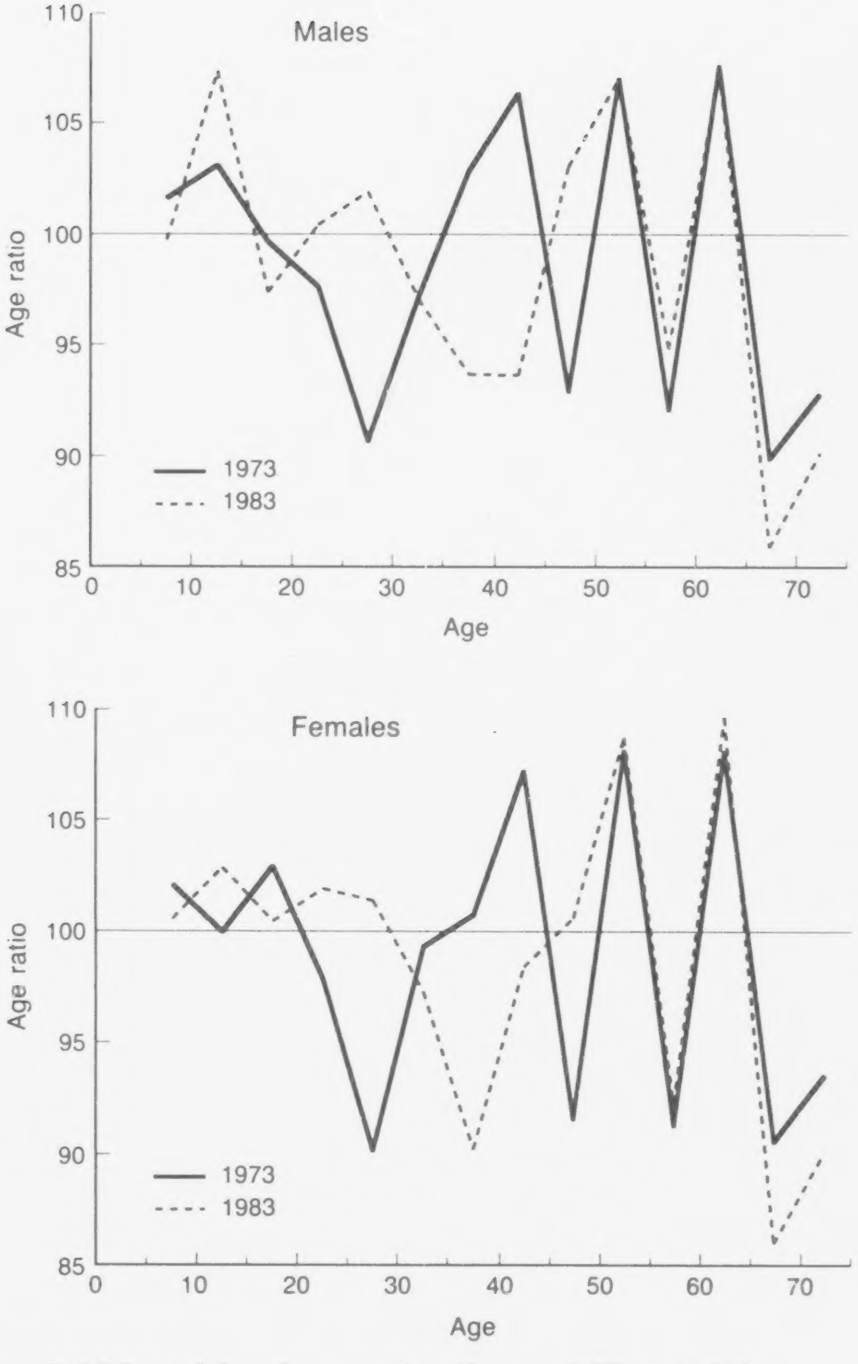

Figure 5. Male and female age ratios: Burma, 1973 and 1983
Sources: Union of Burma (1973: 12-13; 1983b: 29-30).

by Southeast Asian standards. The same census reported a higher percentage of females in the labor force (34 percent) than is common in other parts of Southeast Asia (Union of Burma 1983b: 24, 26).

Celebration of birthdays is not customary among the Burmese people, except among the educated urban class. Nevertheless, the date of birth is important for astrological reasons, and a *sada*, or horoscope, is usually prepared for a newborn child. This practice, which is widespread among the peasants, originated in the belief that the position of the planets at the time of birth determines one's destiny in life. For that reason the exact hour, day, month, and year of birth are recorded so that an astrologer can use the information to prepare the horoscope of the newborn at a later date. The horoscope is consulted on such important occasions as novitiation (the male initiation ceremony among the Buddhists) and mate selection. Because of this practice, most people know their exact age and date of birth, despite the lack of a widespread system of birth registration.

Correcting the Census Age Distribution

The analysis of sex and age ratios has shed light on the extent of true fluctuations in the contemporary age-sex structure of Burma. Indentations at the productive and reproductive ages are too large to be attributed solely to reporting errors. By removing the reporting errors that exist and adjusting the age distribution for relative completeness of enumeration at each age, it should be possible to estimate the true age distribution. I have adapted the Demeny and Shorter (1968) procedure for correcting the age distribution to develop the necessary adjustment factors.

Demeny and Shorter developed their procedure for correcting a census age distribution in a study of the Turkish age distribution from a series of censuses. Coale, Cho, and Goldman (1980) have applied the procedure to Korean censuses to estimate the completeness of enumeration by five-year age groups and found the correction factors obtained by this method to be in close agreement with those based on postenumeration surveys. The basic ideas for this technique were originally put forth by Carrier and Farrag (1959) and later formalized by Brass (1969) and Das Gupta (1975). Ntozi (1978) further modified the technique by using three consecutive censuses. The procedure provides estimates of relative completeness of enumeration by age intervals of the same length as the intercensal period. Lee (1982) extended the procedure and derived correction factors for five-year age groups from decennial censuses. As a by-product of the extension, he also developed a technique for simultaneous search of an appropriate life table from a system of model life tables.

The Demeny-Shorter procedure requires at least two consecutive censuses taken five years apart (so that the intercensal period equals the length of the five-year age interval) and an intercensal life table of the population. It works as follows: Let $A1, A2, \ldots, An$ and $B1, B2, \ldots, Bn$ be enumerated populations in n five-year age groups in the first and the second censuses taken five years apart; and let $S1, S2, \ldots, Sn$ be five-year survival probabilities of an appropriate life table. If $A1$ has been correctly enumerated—that is, if $A1' = A1$ (where A' designates the correct population)—then

$$B2' = A1{*}S1$$

is the correct number of persons in the second age group of the second census, but with an error of $A1$. A provisional correction factor ($R2'$) is derived by taking the ratio of the expected population of age group 2 in the second census to the enumerated population as

$$R2' = B2'/B2.$$

Next, the provisional correction factor, $R2'$, is applied to the enumerated population in age group 2 of the first census to obtain the corrected population. Specifically,

$$A2' = A2{*}R2.$$

$A2'$ is then survived five years to obtain the correct population in age group 3 of the second census; namely,

$$B3' = A2'{*}S2.$$

The process is continued until the last open-age interval is reached. The correction factor for this last age group is obtained separately, based on the assumption that the adjustment factor is the same for both censuses. Put symbolically,

$$R'_{i+} = B'_{i+}/B_{i+} = A'_{i+}/A_{i+}.$$

This assumption is combined with the fact that

$$B'_{i+} = A'_{i-5}{*}S_{i-5} + A_{i+}{*}S_{i+}$$

to yield the provisional correction factor for the open-age interval as follows:

$$R'_{i+} = [A'_{i-5}{*}S_{i-5}]/[B_{i+} - S_{i+}{*}A_{i+}].$$

In this way, a full set of provisional correction factors (R'_i), together with the provisionally corrected populations for the first and the second censuses (A'_i and B'_i), is obtained. But the totals in provisional age distributions may not be the same as the enumerated totals. The provisional age distributions must therefore be scaled to make their totals agree with those of the enumerated age distributions. The required scale factor is obtained as a ratio of the enumerated to the provisional totals and is then applied to the provisional correction factors to generate the final correction factors.

There are four major assumptions of this procedure: first, that the life table employed is a correct representation of the intercensal mortality of the population; second, that the censuses are equal in overall over- or undercount; third, that migration is either negligible or has been allowed for; and finally, that the pattern of age misreporting is similar in the consecutive censuses.

In the present application, I used the spliced life table discussed in the previous section to derive the intercensal survival probabilities. In doing so, I based the 10-year survival rate for the 0–4 age cohort on the Coale-Demeny "West" model life table, selected on the basis of q_5, and assigned that level to both males and females. Next, to obtain correction factors for quinquennial age groups from the age distributions, which are in effect 10 years apart, I split each age distribution into two subsets consisting of odd (that is, with reference to the index number of age groups) and even age groups of 0–4, 10–14, . . . , 70–74 and 5–9, 15–19, . . . , 75+, respectively. I applied the procedure independently to each subset to obtain the provisional correction factors and finally combined them to yield the set of correction factors by five-year age groups.

In adapting the original procedure to 10-year census intervals, it was necessary to assume that both the 0–4 and the 5–9 age groups were correctly enumerated in the first census because the calculation was performed in two independent stages. Next, I obtained the scale factors for odd and even age distributions separately by assuming that the enumerated total in each was correct—which, in theory, amounts to an assumption of no transfers from odd to even age groups and vice versa. In reality, however, heaping is stronger at digit 0 than at digit 5, and therefore the total population in the odd age groups should be somewhat higher than that in the even age groups. The implication is that the final correction factors for odd age groups would be biased upward and those for the even biased downward. To overcome this difficulty, a simple solution—dividing the enumerated total population into even and odd subtotals by using the corresponding proportions in an equivalent stable population—was used, as follows. A stable age distribution was generated by using the ${}_5L_x$ values from the spliced life table and an intercensal growth rate, r. Thus, the number of persons in a five-year age group in the stable age distribution is calculated as:

$$ {}_5N_x = {}_5L_x{}^*\exp[-r(x+2.5)] \qquad (1) $$

Using the intercensal growth rate of 2 percent for both sexes yielded stable proportions in the odd age groups of .5448 and .5445 for males and females, respectively, whereas the corresponding observed proportions were .5419 and .5400 for 1973 and .5352 and .5335 for 1983. The observed proportions, particularly for 1973, are remarkably close to their stable counterparts.

The results of applying the modified Demeny-Shorter procedure for correcting census age distributions to Burmese census data are presented in Table 14 and plotted by five-year age groups in Figure 6. What do the correction factors suggest concerning the pattern of age misreporting in

Table 14. Population by sex and age, corrected for age misreporting: Burma, 1973 and 1983

Sex and age	Census population (000s) 1973	Census population (000s) 1983	Correction factor	Corrected population (000s) 1973	Corrected population (000s) 1983
Males					
0-4	2,128	2,268	1.033	2,197	2,342
5-9	1,976	2,216	0.964	1,905	2,137
10-14	1,762	2,179	0.963	1,697	2,098
15-19	1,443	1,844	1.000	1,443	1,845
20-24	1,136	1,610	1.011	1,148	1,627
25-29	884	1,364	1.001	885	1,365
30-34	815	1,067	1.008	822	1,075
35-39	795	835	0.983	782	822
40-44	731	717	1.048	766	751
45-49	580	696	1.004	583	699
50-54	517	634	1.047	542	664
55-59	387	490	0.983	380	481
60-64	324	400	1.043	338	416
65-69	215	254	1.031	221	262
70-74	154	193	1.021	157	197
75+	117	174	0.934	110	164
All ages	13,963	16,940		13,975	16,945
Females					
0-4	2,106	2,234	1.051	2,215	2,349
5-9	1,953	2,173	0.977	1,908	2,123
10-14	1,719	2,090	1.004	1,727	2,100
15-19	1,488	1,891	0.973	1,448	1,841
20-24	1,173	1,676	0.986	1,157	1,653
25-29	911	1,400	0.979	892	1,370
30-34	849	1,086	0.998	848	1,084
35-39	800	833	0.995	796	829
40-44	739	763	1.024	757	781
45-49	579	718	1.010	585	725
50-54	526	665	1.017	535	676
55-59	394	506	0.998	394	505
60-64	338	431	1.010	342	436
65-69	232	282	1.037	240	292
70-74	173	224	0.978	170	219
75+	139	215	0.951	133	204
All ages	14,122	17,185		14,145	17,186

Sources: Union of Burma (1973: 12-13; 1983b: 29-30).

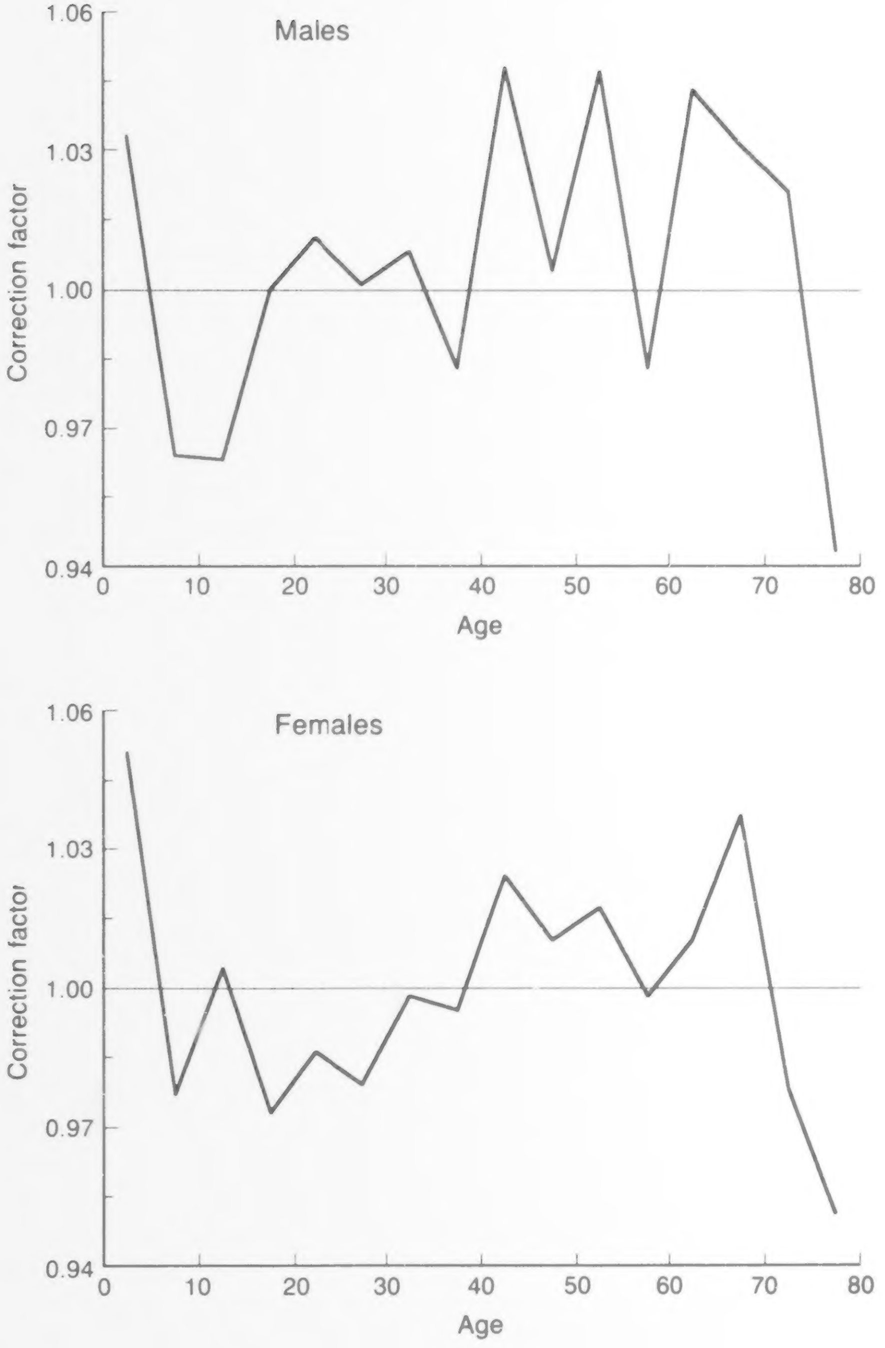

Figure 6. Correction factors for age misreporting, by sex: Burma, 1973–83
Sources: Union of Burma (1973: 12–13; 1983b: 29–30).

Burma? Values exceeding unity imply underenumeration in a particular age group relative to the neighboring age groups; that is, some persons were transferred out of that particular age group into adjacent age groups through misreporting. The values below unity, on the other hand, suggest overenumeration. Viewed in this manner, the age group 0–4 was underenumerated relative to the age group 5–9 for both sexes, as expected. This underenumeration contributed to the corresponding excesses in the succeeding age group.

The excess of females between ages 15 and 39 suggests an upward transfer in the form of age exaggeration, presumably among married females under age 15; and this transfer appears to continue until age 39. In addition, there is evidence of a downward transfer of females above age 39 due to age misstatement.

A reversal in the male–female pattern of age misreporting occurs between the ages of 10 and 35. A deficit of males in these ages contrasts with the excess of females. This finding is consistent with the earlier finding of low sex ratios between the ages of 15 and 35. The correction factors for males above age 35 tend to have a saw-tooth pattern, suggesting that age errors among older persons are largely dominated by digital preference.

The estimate of the true age distributions can now be used to identify small and large cohorts resulting from the swings of past fertility and mortality. This is done by fitting a stable population to the age distributions of each census for each sex using formula (1). Any deviation of a particular cohort from the expected stable proportion gives an estimate of the effect of past fluctuations in fertility, mortality, and migration. The results of such analysis are displayed in Figure 7. The most interesting gap between the observed and stable age distributions is in the age group 20–24 in 1973. The same "subnormal" cohort can be seen in the age group 30–34 10 years later (1983 panels). This pattern of variation is consistent with an earlier one for the age ratios (Figure 5). The age group consists of survivors of the birth cohorts born during World War II and the postindependence civil war.

During times of war, marriage rates and birth rates tend to fall, although they resume their prewar levels after the cessation of hostilities. Death rates, on the contrary, rise, especially those of infants and children, as the disruptive social conditions and other hardships during war impede the provision of food, health care, and other basic human needs. Hauser (1942: 320–321), analyzing data for the United States, has made the following observation:

> . . . the demographic scars which the war will produce [are] represented by the surplus of women of marriageable ages in the population; the gaps in the age structure of the nation—the "hollow classes"; . . . . The "hollow classes" will tend to persist for generations, since the relatively few war babies of World War II will normally produce relatively few offspring for the subsequent generations, thus tending to perpetuate the original deficit. . . .

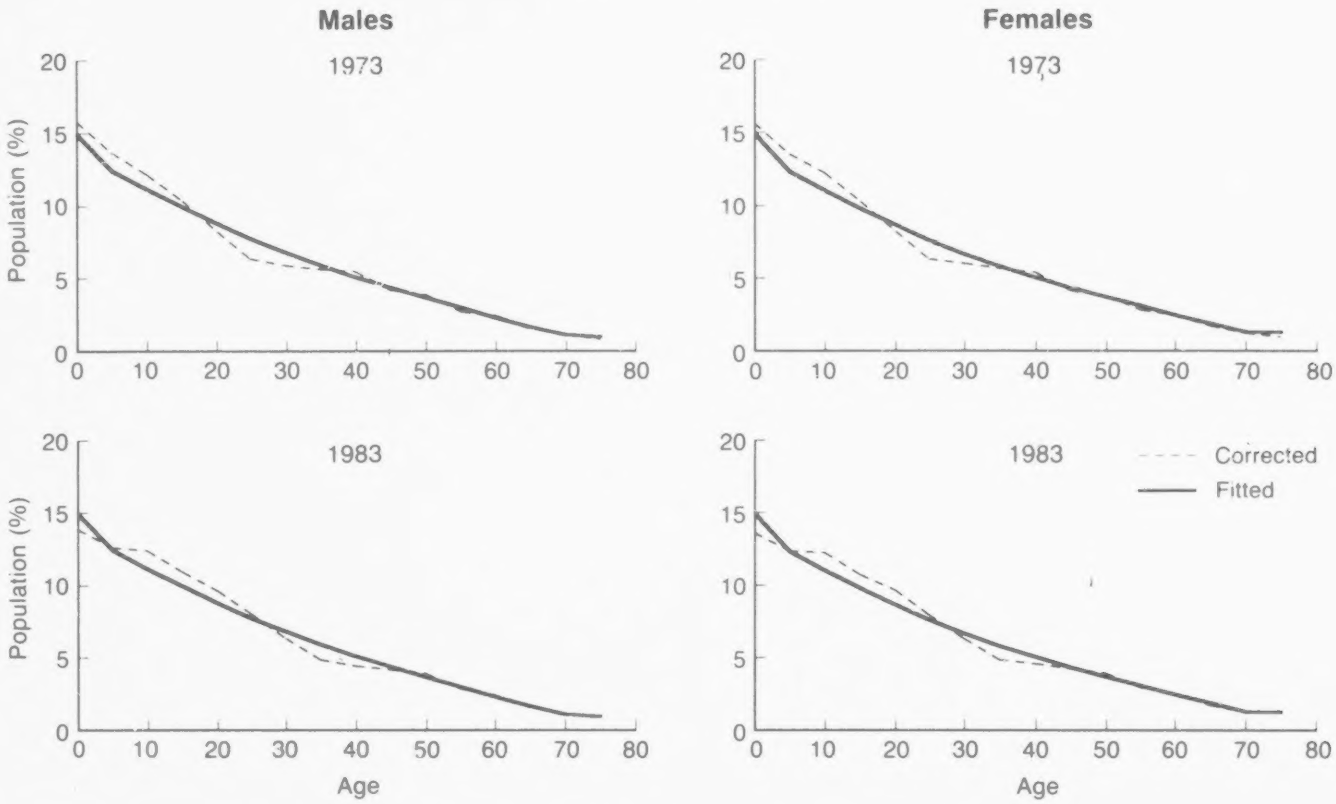

Figure 7. Corrected and fitted age distributions, by sex: Burma, 1973 and 1983

Source: Table 14.

One demographic consequence of the undersized cohort identified in Figure 7 was to depress the average crude birth rate between 1973 and 1983 as it made up the key reproductive ages during that period. At least three demographic factors determine the magnitude of the crude birth rate of a population: the female age distribution, the level of fertility, and the age pattern of fertility. It is reasonable to assume, in the case of Burma, that the latter two were constant during the 1970s. Therefore, the female deficit in early reproductive ages during the 1973–83 period created by World War II and the postindependence civil war was sufficient to cause a small decline in the percentage of children under 10 years of age even if the age pattern of fertility were constant. The lower percentage under age 10 in 1983 (26 percent) than in 1973 (29 percent), due to lower than usual crude birth rates in the 1970s, can therefore be explained by a decline in the number of females in the early reproductive ages, and not necessarily by a real decline in the level of fertility.

In conclusion, the reduced cohort size at the prime reproductive ages in 1973 was most likely the product of low birth rates and high death rates during the war years. It depressed in turn the birth rate during the intercensal decade of 1973–83 to produce a low proportion of children under age 10 in the 1983 census age distribution. Thus, the slight upward pivot of the 1983 age structure is attributable mostly to a temporary downward fluctuation in the crude birth rate caused by the deficit of females in reproductive ages during the 1970s.

FERTILITY

Burmese officials suspected a decline in fertility during the 1973–83 intercensal period after the 1983 census returns were tabulated and compared with those of the 1973 census. Their suspicion was based on the finding that the proportion of the population under 10 years of age in 1983 was smaller than that in 1973. The suspected decline in fertility may have occurred, but questions about the current level and the trend in the birth rate remained unanswered.

Using national and subnational-level data on fertility from the 1983 census, I estimated the fertility level and trend for the intercensal period and then compared them with independent estimates of birth rates obtained from the age distribution by means of the reverse-survival technique. The estimates are presented here with estimates of the degree of fertility control in Burma.

Data Sources

As with mortality, the study of fertility in Burma is hampered by data problems. Although birth registration was begun as early as 1864 in some areas of colonial Burma, it was incomplete and defective. Birth registration was interrupted in 1941, when World War II spread to the region, and remained disrupted in many areas for several years after demobilization because of the civil war in Burma. For these reasons, it is impossible to estimate with precision the historical levels and trends in fertility.

The scope of information collected by the postwar birth registration system was extended to include such variables as the age and parity of the mother. Despite this advance, Burma still lacks a technical and administrative infrastructure for a nationwide vital registration system, making the prospect remote for obtaining complete and reliable data on births.

In the absence of complete birth statistics, data from censuses and sample surveys must be employed for fertility analysis. Although the Burmese government agreed to participate in the World Fertility Survey in the 1970s, its plan to do so never materialized. But three fertility surveys have been conducted in conjunction with the censuses on a sample basis. The first was in 1931, but the data from it were not fully analyzed, nor were they published. The second, a 20 percent systematic sample, was undertaken with the 1953 urban census but was limited to the urban population. The last, the CEB/CS survey, was the first country-wide fertility survey to be done in Burma and was conducted with the 1983 census. An independent fertility survey of government employees in Rangoon was conducted in 1964, the results of which were analyzed and reported by Maung and Shwe (1966, in Burmese). Because the 1973 census did not collect fertility data, inferences about fertility trends must be based mainly on comparisons of data from the two surveys for which data are available. My analysis places heavy reliance on the 1983 CEB/CS survey; but the 1953 CEB/CS survey data are also considered, and census age distributions are used to make the reverse-survival estimates of crude birth rates. The deficiencies of the data available have dictated the use of indirect estimation techniques.

The 1983 CEB/CS survey was based on a 20 percent systematic probability sample of ever-married women drawn from the whole population and presumably yielded data of high quality and dependability. The published reports included classification of children ever born and number born during the 12 months preceding the survey by five-year age groups of women classified by rural–urban residence and administrative subdivision. But no classifications by socioeconomic status were published, and the analysis of differential fertility is limited to urban–rural and geographic variables.

According to the 1983 CEB/CS survey, the unadjusted total fertility rate (TFR) for Burma as a whole was 4.8 children per woman. This figure is high but not excessive for a developing country. The regional differences in the unadjusted TFRs ranged between 3.7 for Rangoon Division to 5.4 for Magwe Division. Interestingly, although Rangoon Division showed a low proportion (8.4 percent) of zero-parity women 30 years old and older, its TFR was the lowest of all the regions. Unfortunately, it has not been possible to examine the effects of regional variations in nuptiality and age at marriage on regional fertility differentials owing to the lack of published data on marital status by region.

Past Birth Rate Levels and Trends

Hauser and Kitagawa (1954: 103) have observed that "[Burma's] fertility and mortality, while not precisely known, are both high and conform with the expected pattern in an essentially preindustrial culture." These observations are still true after more than three decades, particularly the observation that fertility and mortality are still imprecisely known. Accordingly, uncertainties prevail in any discussion of the trends and levels of birth rates in Burma, as the following brief review of the literature on Burmese fertility demonstrates.

Previous studies have reported conflicting estimates of prewar birth rates based on vital statistics. For example, Grantham (1923), using the registered births, estimated the national crude birth rate during the prewar years to be in the range of 30-35 per thousand population, whereas the United Nations (1954) placed the range between 46 and 49. Sundrum (1957: 45, 49), using official estimates based on birth registration data from a number of towns having a combined population of 1.3 million, placed the postwar range at 45-50 and concluded that the prewar rate was "not much different." In my opinion, the postwar estimates are too high, whereas those by Grantham may be too low.

The official birth rate for the 1962-78 period, based on birth statistics from a number of towns, ranged between 28 and 41 per 1,000 (Steinberg 1981: 87). My own estimates for the period 1953-73, based on a stable population model, yielded a birth rate of 39 under the assumption of stability and of 41 under the assumption of quasi-stability (Maung 1986: 25). Given the inadequacy of the data from these sources, it is not possible to reconcile the disparities among the various estimates.

Grantham (1923: 128) speculated that, whereas the death rate remained at a high, steady level, the birth rate fluctuated, reaching its zenith around 1904. High birth rates in the first decade of the 20th century are plausible because that decade saw the establishment of modern commercial agriculture in Burma and was an important turning point in the economic history of Burma. The initiation of development in the delta region in the latter half of the 19th century undoubtedly brought prosperity to people in all strata of society (Adas 1974). It is possible that the birth rate rose to new highs by the close of that century in response to broad economic and political developments. A study of fertility using census data and various indirect estimation models would provide clues to probable trends and levels of past fertility in Burma and shed light on the rather confused picture of historical fertility.

The postwar fertility trend is equally uncertain and tentative. The government's official postwar birth rates are the only available source for assessing the postwar trend. Based on birth registration data from some urban areas, the rates indicate a sustained decline in fertility between 1951 and 1978 (Maung 1986: 24).

Contemporary Birth Rate Levels and Trends

Using the crude death rate estimates for the intercensal years derived in the last section, it is a simple matter to calculate the average intercensal crude birth rate by adding the observed intercensal growth rate to it. Thus, the estimated average birth rate over the decade of 1973–83 was $b = .01997 + .0140 = .03397$, or 34.0 per thousand population. This value falls within the range postulated by Grantham, but it is lower than my own stable and quasi-stable estimates of 39.2 and 41.6, respectively, based on the 1973 age distribution and the assumption of a 2 percent growth rate between 1953 and 1973 (Maung 1986: 25).

Using the reverse-survival technique, I have also obtained independent estimates of crude birth rates. The general theory underlying this procedure is as follows. All children who are x years old at time t are assumed to be survivors of a cohort born during the year t-x; hence, if $P_{x,t}$ is the number of persons of age x at time t, l_0 is the life table radix, and L_x is the number of person-years lived between age x and $x+1$, then the number of births x years ago is easily obtained as

$$B_{0,t-x} = (l_0/L_x)\cdot P_{x,t}.$$

The five-year age distribution of the population five years earlier can be obtained by reverse-surviving the population in five-year age groups. The sum of the population in five-year age groups gives an estimated total population five years ago. The estimated average annual number of births can then be divided by this population to obtain an estimate of the birth rate during the five-year period.

The accuracy of the crude birth rates estimated by the reverse-survival technique is dependent upon the accuracy of the census age distribution and the appropriateness of the assumed model mortality level. In particular, the reverse-survival birth rates are sensitive to errors in the age distribution of young children, especially the underreporting of children 0–4 years old, and to coverage errors when two censuses are employed.

Using five-year age groups, I have reverse-survived children 0–4 and 5–9 years old enumerated at time $t = 1983$ to obtain the average annual number of births during the two five-year periods preceding the census. The survival rates for reverse projection were obtained from the Coale-Demeny "West" model life tables selected on the basis of the child mortality index (q_5) from the previous section. This method gives the estimates of an average annual birth rate for the periods t-5 to t and t-10 to t-5, where t represents the census date. Estimates of the midyear population for the denominator of each of the two CBRs were obtained by using the expression

$$P_m = P_t \cdot \exp[r_{tm-t}],$$

where P_m = average total population at midpoint of the period,
P_t = total population at enumeration date,
r = estimated growth rate, and
t_m = midpoint of the period considered.

Thus, the population of the 1983 census (for each sex) was reverse-projected to obtain midyear populations for two five-year periods centered at 2.5 and 7.5 years before the census. The rate of growth used, *r*, was the average of the male and female intercensal growth rates estimated from the 1973 and 1983 censuses. The derived crude birth rates refer roughly to calendar years 1980.8 and 1975.8. For convenience of later reference, I have labeled the crude birth rates corresponding to the two five-year periods as CBR1 and CBR2, which are centered at 1975.8 and 1980.8, respectively.

Obviously, if the level of child mortality chosen were too low, then the resulting estimates of crude birth rates would also be too low, and conversely, if they were too high, the resulting estimates of crude birth rates would be too high. Similarly, even if the mortality level selected were appropriate, the average annual number of births obtained by reverse-projecting the age groups 0–9 and 0–4 is likely to be less than the true annual number of births because of widespread underenumeration at those ages. Hence, crude birth rates obtained by the reverse-survival technique represent the lower boundary of true birth rates.

As I showed earlier (Table 14), age misreporting in the 1983 census for the age group 0–4 was about 4 percent for males and 5 percent for females. Assuming that the mortality level used was correct, the average crude birth rate for 1981, CBR2, estimated by the reverse-survival technique should also be inflated by about 5 percent to yield a corrected estimate of 32.8 instead of 31.0 (Table 15).

The results from applying the reverse-survival technique, together with those obtained directly from the 1983 CEB/CS survey information on births during the previous year, are presented in Table 15. The survey-based CBRs were obtained as follows. Given that the reported numbers of births in the survey referred to a period averaging six months before the survey, i.e., 1982.8, I reverse-projected the enumerated populations by half a year. This gave the estimated midyear population, to serve as the denominator for crude birth rates. The number of births used in the numerator was the reported number unadjusted for the reference period error. Census officials explained that they used an indirect method to derive the number of births because a direct question on it might have resulted in reporting errors due to respondents' misperception of the length of the reference period (Union of Burma: 1983b: 34). They therefore converted the birth dates of the children more recently born to births in the 12 months preceding the census date.

Table 15. Crude birth rates estimated by the reverse-survival method and directly computed from the reported number of births during previous year: Burma, 1976–83

	Birth rate		
	Reverse survival[a]		Direct computation[b]
	CBR 1	CBR 2	
State/division	(1975.8)	(1980.8)	(1982.8)
Union total	33.7	31.0	34.8
Urban	30.1	26.0	27.2
Rural	34.8	32.7	37.3
Shan State	34.2	29.7	28.3
Rakhine State	38.9	36.0	38.1
Mon State	37.2	32.6	35.8
Karen State	31.2	31.0	33.6
Kachin State	38.0	32.7	35.7
Chin State	38.3	35.1	37.9
Kayah State	45.1	38.2	37.7
Irrawaddy Division	33.1	31.4	38.4
Mandalay Division	38.2	39.4	34.5
Rangoon Division	31.4	26.5	29.2
Sagaing Division	38.6	33.7	36.8
Pegu Division	36.6	35.6	33.9
Magwe Division	38.4	37.8	38.5
Tenasserim Division	38.9	33.7	33.3

Sources: Union of Burma (1983b: 29–32); Coale and Demeny (1968).

a. Figure in parentheses is reference date.

b. Based on reported number of live births in the 12 months preceding the survey and the mid-year population preceding the census.

The national birth rate obtained from the average intercensal death rate and the growth rate is astonishingly close to the CBR1 of 33.7 independently obtained by means of the reverse technique (34.0). Both refer to the same reference date, 1978. The close agreement between the two increases confidence that either one is a plausible estimate of the intercensal crude birth rate.

The two sets of birth rates derived from reverse survival, CBR1 and CBR2, provide clues to recent trends in the crude birth rate. The CBR for all Burma appears to have declined by about 8 percent, from 33.7 in 1975.8 to 31.0 in 1980.8, but the small amount of change may be the result of errors in the census data or the life table employed. An apparent downward trend in rural areas may also be due to data errors. In the case of urban areas, the estimates show a 14 percent decline in the estimated CBR between 1975.8 and 1982.8, larger than the decline indicated for either the total or the rural population but not large enough to provide a firm basis for concluding that fertility actually declined. A difference of this size in the CBR could have resulted from a decline in the proportion of females in the reproductive ages or a rise in the female age at marriage. The first was definitely a factor, as I have demonstrated in the discussion of the age distribution. The latter was also, as will be seen.

The regional trends are also generally downward. Interestingly, Rangoon Division is the only division showing a large decline (of about 16 percent). Other urbanized regions, such as Mandalay and Pegu Divisions and Mon State, show moderate downward trends.

The survey-based crude birth rates are slightly higher than those obtained by the reverse-survival method in nine out of 14 regions. But the three sets of CRBs, based as they are on two methodologies using different data and referring to different dates, show no systematic trend, though they seem to suggest some recovery in the birth rate during the latter part of the intercensal decade.

Urban-rural differentials in the CBR exist in each set of estimates. The largest differentials occur in the more recent estimates, which is what one would expect. Similarly, given the agrarian character of the Burmese society, it is encouraging to find that in every instance the all-Burma estimate is closer to the rural than to the urban CBR. The differences between rural and urban CBRs are undoubtedly due to later age at marriage and thus later childbearing among urban females.

Regional differentials in the CBR can also be seen from Table 15. The regional rankings by the three sets of CBR estimates are in remarkably close agreement and are consistent with differences in the socioeconomic conditions of the regions. The states, most of which have higher CBR estimates than the divisions, also tend to be more rural and less developed than the divisions and situated away from the major transportation and communication routes. Both the reverse-survival and the survey-based estimates suggest higher CBRs in the northern and western regions and lower CBRs in the central plains and the delta regions. The dichotomy between high land and low land areas observed here is similar to that already observed for mortality. The regional fertility differential is also consistent with the historical trend of urbanization and economic development in Burma, and indeed may be historical.

Because of the caveats associated with each type of estimate, it is difficult to choose a single best birth rate. The mean of the three estimates, or 33.2 per 1,000 for Burma as a whole, may serve as a good compromise; but the choice of CBR1 by itself, because it refers to the midpoint of the period, is equally good. The two are in close correspondence.

The *P/F* Ratio Analysis

To investigate further the apparent decline in CBR, particularly in urban areas, I computed the Brass *P/F* ratios (Table 16). The *P/F* ratio was invented by Brass to diagnose the quality of retrospective fertility data (Brass et al. 1968). It is now a standard procedure for correcting for various biases the schedule of age-specific fertility rates based on the number of births in the year preceding a census or survey. The essence of this procedure is a comparison of the lifetime, or cohort, parity of women, *P* (mean number of children ever born), with cumulative period fertility *F* (the hypothetical mean parity if a woman had borne children according to the fertility schedule reported in the survey). The key assumption of the method is that fertility has been constant in the recent past. If a fertility decline is suspected, then the method is inapplicable for adjustment purposes. For such situations, a variation of the original *P/F* ratio procedure, namely the first-birth *P/F* ratio, has been developed for the adjustment of an age-specific fertility schedule based on births during the previous year.

The *P/F* ratios, however, can also be used to reveal recent fertility trends. For example, if they increase with the age of women, then the evidence in favor of a fertility decline is strong. Examination of the *P/F* ratios in Table 16 shows that, except for P_1 and P_7, there is no correspondence between *P*s and *F*s; instead they appear to rise with age of women. That this ascent of *P/F* ratios is particularly steep for urban areas supports the earlier finding that urban areas may have experienced some decline in fertility during the intercensal decade. On the other hand, the consistency between *P*s and *F*s is quite good for rural Burma as indicated by the greater stability of the *P/F* ratios over the age range. The virtual absence of an age gradient in the rural *P/F* ratios while they remain above unity may indicate the possibility of some underreporting of current fertility by rural females.

The most interesting age pattern of *P/F* values for regions is that, except for P_1 and P_7, three divisions—Rangoon, Mandalay, and Pegu, all with a high degree of urbanization—show steeper and more systematic ascents in *P/F* ratios with women's age than the other regions. To a lesser extent an upward trend of *P/F* ratios by age is found for Kachin, Karen, and Shan States. In the case of Kayah State, however, the ratios are all under unity, implying an overreporting of current births (which is somewhat unlikely), and the variation is erratic. It should be remembered that the results for regions with small populations are suspect because of large sampling errors.

In summary, the *P/F* ratio analysis lends further support to the conclusion, reached on the basis of CBR estimates, that some decline of fertility occurred in urban but not rural areas during the intercensal decade.

The Age Pattern of Fertility

Virtually nothing is known about the age pattern of fertility during the prewar years because the vital registration system did not obtain informa-

Table 16. *P/F* ratios, by state and division: Burma, 1983

	Age group						
State/division	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Union total	1.317	1.066	1.081	1.129	1.145	1.167	1.142
All urban	1.205	1.098	1.165	1.301	1.391	1.485	1.484
Rural	1.352	1.058	1.058	1.086	1.085	1.091	1.061
Shan State	1.578	1.285	1.285	1.373	1.387	1.388	1.358
Rakhine State	1.235	1.137	1.122	1.177	1.170	1.179	1.156
Mon State	1.437	1.069	1.069	1.110	1.127	1.159	1.121
Karen State	1.583	1.039	1.118	1.146	1.202	1.217	1.172
Kachin State	1.778	1.097	1.127	1.252	1.304	1.291	1.305
Chin State	2.125	1.178	1.199	1.246	1.190	1.142	1.112
Kayah State	1.594	0.817	0.956	0.961	0.900	0.959	0.950
Irrawaddy Division	1.061	0.928	0.921	0.955	0.961	0.975	0.952
Mandalay Division	1.464	1.104	1.135	1.165	1.178	1.215	1.195
Rangoon Division	1.139	1.046	1.093	1.207	1.279	1.358	1.347
Sagaing Division	1.582	1.076	1.110	1.149	1.155	1.177	1.176
Pegu Division	1.355	1.039	1.044	1.085	1.111	1.143	1.098
Magwe Division	1.307	0.994	1.013	1.028	1.015	1.020	0.983
Tenasserim Division	2.014	1.244	1.215	1.275	1.288	1.311	1 281

Source: Union of Burma (1983b: 209).

tion on age of mother when a birth was registered. This information became mandatory, however, in the postwar years. Unfortunately, postwar birth registration has been limited to selected towns, and the registration data are of doubtful quality. Consequently, it is necessary to rely on the 1983 CEB/CS survey for estimating the age schedule of fertility. But the 1953 CEB/CS survey for urban areas did not collect data on births during the preceding year and hence a fertility schedule cannot be directly estimated for 1953 for assessing the changes in the age pattern of postwar fertility.

The age-specific fertility rates for 1983 shown in Table 17 have been obtained by using the Brass adjustment for bias due to one-half year age displacement, since women reporting births on the date of the survey were roughly one-half year younger than their age at the time of the survey. Table 17 and Figure 8 show that fertility in Burma tends to be concentrated in the 20s, the mode occurring in the age group 25-29. This pattern holds for urban and rural populations alike. Birth rates for the two age groups adjacent to the modal group are only slightly lower, yielding a broadly peaked fertility schedule curve typical of populations in which few couples control their fertility with modern contraceptives.

The rather low fertility observed for the age group 15-19 can be explained by the late age at marriage in Burma, discussed in the section on

Table 17. Corrected age-specific fertility rates: Burma, 1983

Age group	Union total	Urban	Rural
15-19	.0610	.0505	.0648
20-24	.1897	.1470	.2050
25-29	.2257	.1696	.2456
30-34	.2063	.1465	.2275
35-39	.1629	.1063	.1831
40-44	.0811	.0502	.0917
45-49	.0187	.0112	.0212
TFR	4.7270	3.4070	5.1950

Source: Union of Burma (1983b: 209).

nuptiality. The decline of fertility after age 30 is undoubtedly due to declining fecundity with age. It is noteworthy that the urban and rural schedules are markedly differentiated in the level of fertility at each quinquennial age group but not in the pattern of fertility. The largest differential is observed for the modal age group of 25-29 years, in which 40 percent more rural than urban women had borne children in 1983.

Marital Fertility and Fertility Control

Marital fertility rates (the average number of reported births to ever-married women during the 12 months before the survey) have been analyzed by means of the Coale-Trussell (1978) marital fertility model to estimate the degree of fertility control in Burma. It is convenient to begin this discussion by considering the distinction between natural fertility and controlled fertility. The term "natural fertility" was coined by French demographer Louis Henry (1961) in connection with a study of fertility in medieval Europe. According to Henry, natural fertility is fertility that exists in the absence of conscious fertility control, and conscious fertility control is said to exist when a couple's behavior is modified by the number of children already born. Henry found that the age pattern of natural fertility was similar in a variety of societies in which couples did not practice deliberate fertility control; but owing to institutional differences governing marriage, procreation, and family size, the societies had different levels of marital fertility, though not different age patterns of fertility. Knodel (1983) reported some exceptions to Henry's thesis, however. The typical age pattern of natural fertility is that it declines slowly from age 20 until about age 35, and thereafter declines much more rapidly owing to an increasing incidence of sterility and a widening of the average birth interval due to the normal aging process. Controlled fertility, in contrast, declines sharply with age, after reaching a peak at some early age, as larger percentages of couples begin to practice fertility control when they have achieved their desired family size.

Coale (1971) and later Coale and Trussell (1978), exploited these notions, developing a two-parameter exponential model of marital fertility. The mathematical description of this model is as follows:

$$r(a) = M^{*}n(a)^{*}\exp[m^{*}v(a)] \quad (2)$$

where $r(a)$ = observed marital age-specific fertility rate,
$n(a)$ = natural fertility at age a, which is constant,
$v(a)$ = typical age pattern of difference between $n(a)$ and $r(a)$, which is constant,
M = level of natural fertility of a given population, and
m = index of fertility control.

This model I fitted to the Burmese data on marital fertility to estimate the degree of fertility control in Burma. The M parameter of the model reflects the level of marital fertility; that is, it shows the fertility level of a population in the absence of control as a percentage of natural fertility. It is the level of fertility among married women of ages 15–24, at which fertility control is assumed to be minimal. The m parameter indicates the degree of

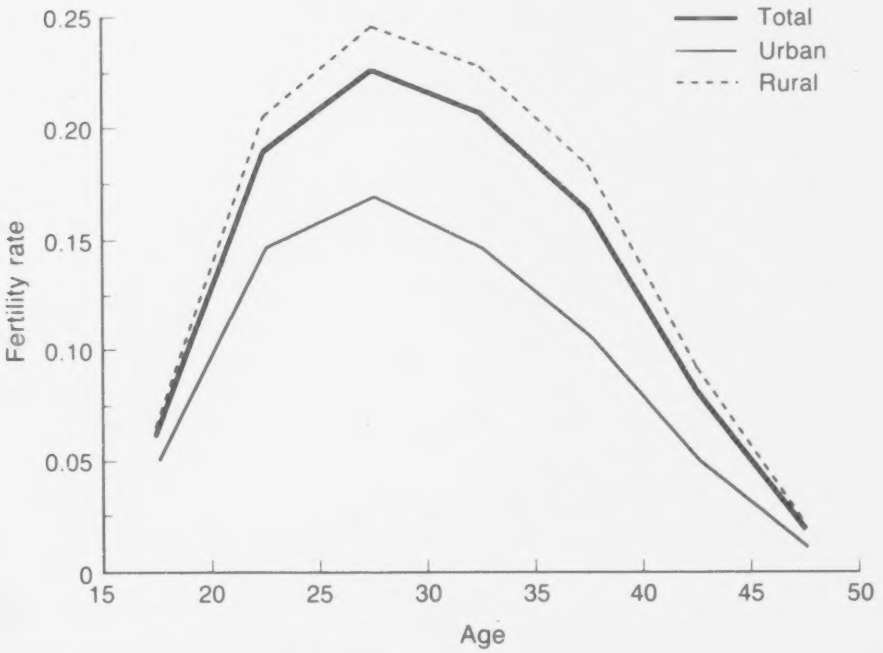

Figure 8. Age-specific fertility rates for union total, urban, and rural populations: Burma, 1983

Source: Union of Burma (1983b: 209).

fertility control. According to Coale and Trussell, a nonzero *m* does not imply control. Concerning the interpretation of the *m* parameter, they state: "Determination of whether fertility is natural from a single observation of marital fertility is difficult, but we believe that any value of *m* less than .2 can be taken as evidence of no control. On the other hand, with a series of estimates of *m* over time one can more readily interpret their meaning." (Coale and Trussell 1978: 205)

I estimated the *M* and *m* parameters by the least square procedure after linearizing the model by logarithmic transformation. The results are displayed in Table 18. At ages 15–19 the observed fertility values are usually unreliable, and hence the fitted values will also be. For the key childbearing ages of 20–34, the fit of the model schedules to the observed schedules is excellent, as judged from the mean square errors (MSE). This is particularly true for the urban population. The values of *M*, which reflect the level of natural fertility among married women at younger ages, and the values of *m*, which indicate the degree of control, are both in line with the expectation of higher natural fertility and lower degree of control in rural than in urban areas. ($M = 1$ and $m = 0$ produce the level of fertility of the population under study that is identical to Henry's average of the 10 schedules of natural fertility.) The estimated index of fertility control, *m*, was .152, .417, and .076 for total, urban, and rural populations, respectively. These values are small and do not indicate evidence of fertility control in Burma, except to a small extent in urban areas.

Fitting the model to data for the 14 states and divisions and to their respective urban and rural populations revealed some regional variation in the *M* value around the national average of .694, but most regions showed the value to lie in a narrow range (Table 19). Similarly, the value of *m* varied little by region. In only five cases were the *m* values near the minimum of .0, indicating an absence of fertility control. Even for the Rangoon Division it was only .375, too small a value to constitute evidence of significant control.

The rural-urban differences in the *M* and *m* values are in the expected direction within each region except in Chin State. For the primate city, where deliberate fertility control might be assumed to exist, the index of control was only .539. Interestingly, the rural population of Rangoon Division showed the highest level of natural fertility ($M = .809$), higher than that for all Burma (.694). Later marriage, later childbearing, and perhaps some use of modern contraceptives are probably the factors associated with the small *M* and large *m* in Rangoon City.

Total Fertility Rate

The various estimates of fertility at national and subnational levels obtained by different methodologies and data for various reference dates may now be summarized by means of a simple aggregate indicator, the total fertility

Table 18. Observed and fitted values of marital fertility rates for union total, urban, and rural populations: Burma, 1983

	Union total		Urban		Rural	
Age group	Obs.	Model	Obs.	Model	Obs.	Model
15–19	.251	.285	.253	.260	.250	.292
20–24	.318	.319	.291	.291	.326	.327
25–29	.289	.285	.241	.239	.304	.299
30–34	.241	.243	.180	.178	.261	.265
35–39	.188	.190	.126	.131	.210	.211
40–44	.094	.093	.060	.058	.108	.107
45–49	.022	.013	.014	.008	.025	.015
Mean square error	.000185		.000017		.000270	
Model parameter estimates						
M	.694		.632		.711	
m	.152		.417		.076	

Source: Union of Burma (1983b: 209).

rate (TFR). The crude birth rate estimates obtained by the reverse-survival method can be converted into equivalent TFR values by assuming the age pattern, but not the level, of fertility estimated for 1982–83. To obtain an age pattern, I normalized the observed fertility schedules, corrected for half a year of age displacement. I then obtained the number of births implied in the normalized schedule by using the female age distribution of 1983. The ratio of the number of births so obtained to the number of births implicit in a given estimate of the CBR by the reverse-survival method gives the required TFR corresponding to a given estimate of the crude birth rate. The results of these calculations are shown in Table 20 for total, urban, and rural populations and for the 14 regions, together with the survey-based TFR. The survey-based TFR shows a difference of roughly two (1.8) children between the urban and rural families, but the rural–urban difference in TFR from the reverse-survival birth rates is less (1.3). One should keep the method-specific errors in mind when interpreting the results. For example, greater underenumeration of children in rural than in urban areas could have been the cause of the lower than expected reverse-survival birth rate estimate for rural Burma.

The rural–urban differentials within regions (not shown here) showed the largest difference in Rangoon Division, where total fertility was 2.8 children per woman higher in rural than in urban areas. The difference was about two children per woman in Mandalay, Pegu, and Irrawaddy Divisions, all of which have high urbanization levels. This finding is encouraging and lends support to the consistency and credibility of the estimates.

Table 19. Estimates of parameters *M* and *m* and their mean square errors for Coale-Trussell marital fertility model for union total, urban, and rural populations, by state and division: Burma, 1983

	Union total[a]		Urban[b]		Rural[c]	
State/division	*M*	*m*	*M*	*m*	*M*	*m*
Shan State	.513	.205	.647	.540	.485	.129
Rakhine State	.653	.217	.629	.356	.626	.057
Mon State	.706	.123	.683	.352	.718	.057
Karen State	.692	.167	.666	.299	.692	.167
Kachin State	.745	.236	.737	.358	.748	.206
Chin State	.711	.093	.762	.221	.705	.074
Kayah State	.746	.238	.769	.265	.738	.235
Irrawaddy Division	.767	.149	.654	.373	.781	.115
Mandalay Division	.705	.096	.609	.427	.741	.018
Rangoon Division	.666	.375	.597	.539	.809	.127
Sagaing Division	.748	.098	.636	.269	.764	.075
Pegu Division	.701	.144	.648	.347	.714	.101
Magwe Division	.761	.077	.667	.322	.776	.044
Tenasserim Division	.649	.057	.689	.241	.638	.007

Source: Union of Burma (1983b: 169–184).

a. Mean square errors ranged between .00003 to .0012.

b. Mean square errors ranged between .00003 to .00065.

c. Mean square errors ranged between .00012 to .0012.

In conclusion, the analysis of total fertility shows that the rate for all Burma of 4.7 children, based on the survey, and the rates of 4.6 and 4.2, from the CBR1 and CBR2 derived by the reverse-survival method, are impressively close to one another and within a plausible order of magnitude. It must be remembered, however, that the TFRs implied by the reverse-survival CBR are downwardly biased, as are the CBRs themselves, and hence they give lower bounds of the true TFR. When the adjusted population in age group 0–4 was employed, the implied TFR was raised to 4.7, which is identical to that obtained directly from the survey data. It is reasonable to accept the TFR value of 4.7 for all Burma as representing the most probable level of contemporary fertility in Burma.

Changes in Nuptiality

In a traditional society such as Burma, almost all fertility occurs within marriage and the incidence of illegitimacy is negligible. This implies that changes in age at marriage and in the percentage married exert an important influence on the overall number of births even if marital fertility remains con-

Table 20. Total fertility rates implied by the reverse-survival and survey-based birth rates, by state and division: Burma: 1973–83

State/division	From reverse-survival birth rates 1973–78	1978–83	From survey-based birth rates (1982–83)
Union total	4.6	4.2	4.7
Urban	3.8	3.3	3.4
Rural	4.9	4.6	5.2
Shan State	4.5	3.9	3.7
Rakhine State	5.2	4.8	5.1
Mon State	5.2	4.6	5.0
Karen State	4.4	4.3	4.7
Kachin State	5.1	4.4	4.8
Chin State	5.2	4.8	5.1
Kayah State	6.3	5.4	5.3
Irrawaddy Division	4.5	4.3	5.3
Mandalay Division	4.8	4.3	4.7
Rangoon Division	4.0	3.4	3.7
Sagaing Division	5.4	4.7	5.1
Pegu Division	4.7	4.2	4.7
Magwe Division	5.2	4.7	5.4
Tenasserim Division	5.5	4.8	4.7

Sources: Table 15 and Union of Burma (1983b: 29-40; 209-213).

stant. Therefore, understanding changes in nuptiality is necessary if one is to understand changes in the CBR and the fertility level of the population.

The censuses of 1973 and 1983 elicited information on marital status. Table 21, which shows percentages of females remaining single by five-year age groups together with the singulate mean age at marriage (SMAM) for the total, reveals that the proportion of females remaining single in 1983 was substantially larger than in 1973 in all key reproductive ages from 15 to 34. This was especially the case in urban areas. The female SMAMs were also appreciably higher in 1983, by about a year in each subdivision. The rise in the female age at marriage over the intercensal decade was dramatic in the urban areas (21.9 versus 23.4).

The SMAM based on the census distribution of single females assumes that this distribution was experienced by a real cohort, which would not be the case if nuptiality patterns had been changing during the decade. Given the distribution of single females from two censuses, however, the distribution of single females based solely on these two sources can be constructed so that it reflects the marriages that occurred during the intercen-

Table 21. Percentage of females single, by five-year age group, for union total, urban, and rural populations: Burma, 1973 and 1983

	Union total		Urban		Rural	
Age group	1973	1983	1973	1983	1973	1983
15–19	78.0	83.2	81.3	85.5	76.9	82.3
20–24	35.5	42.1	42.9	50.5	33.1	39.0
25–29	16.7	21.6	20.6	29.1	15.3	18.9
30–34	9.3	12.9	11.3	16.8	8.7	11.4
35–39	7.0	8.9	9.0	10.9	6.4	8.2
40–44	6.2	6.7	8.0	8.2	5.7	6.2
45–49	5.9	5.9	7.7	7.9	5.3	5.2
50–54	5.7	5.9	7.5	7.7	5.2	5.3
SMAM	21.3	22.4	21.9	23.4	21.1	22.1
Intercensal SMAM	22.6		23.6		22.3	

Sources: Union of Burma (1973: 52–57; 1983b: 45–50).

SMAM—singulate mean age at marriage.

sal years. The SMAM based on this distribution, which is known as the intercensal SMAM, can then be calculated in the same manner as before. Briefly, the formula for determining the intercensal distribution of single females is as follows:

$$S_i' = [S_{i-1}' * S2_i]/S1_{i-2}, \quad \text{for } i = 4 \text{ to } 8 \qquad (3)$$

where i = index of five-year age groups 15–19, . . . , 50–54,
$S1_i$ = distribution of single females in 1973,
$S2_i$ = distribution of single females in 1983, and
S_i' = distribution of single females for the intercensal synthetic cohort.

For 10-year intercensal intervals using five-year age groups, one must first set the $S_1' = S2_1$ and $S_2' = S2_2$, and then obtain S_3' by the expression $[S2_1 * S2_3]/S1_1$. The remaining S_a' are obtained from equation (3) above. The results of these calculations are given in the bottom panel of Table 21. If age at marriage had been constant, then the SMAM from the 1973 census should equal the intercensal SMAM. The data suggest that age at marriage rose for women during the intercensal decade. If that is indeed the case, it indicates that even a closed society like Burma is affected by the worldwide trend of rising female age at marriage. Therefore, the decline in crude birth rates shown by various estimates presented in this paper is due in part to the increase in female age at marriage, the large proportion of females remaining single at the key reproductive ages, and the entry of a small female cohort into the prime reproductive ages during the 1970s.

SUMMARY AND CONCLUSION

The lack of vital registration on a national level has hampered the direct estimation of vital rates in Burma. Consequently, this study has used data from two national postwar censuses, taken in 1973 and 1983, and an appropriate set of modern demographic estimation techniques to assess Burma's contemporary demographic features at national and regional levels. Specifically, it has derived plausible and consistent estimates of fertility levels and trends; infant, child, and general mortality; life expectancy at birth; singulate mean age at marriage; and the degree of fertility control practiced by Burmese couples.

The results indicate that the Socialist Republic of the Union of Burma achieved a remarkable decline in mortality, particularly of child mortality, in a short span of time. In contrast, an apparent fertility decline, suggested by a marginal fall in the proportion under 10 years of age observed in the 1983 census age distribution, is spurious. The results support the hypothesis that small female cohorts born during the catastrophic years of World War II and the postindependence civil war had merely moved into the early reproductive ages by 1973. There is no basis for assuming a change in the reproductive behavior of couples. The analysis also reveals that the age pattern of fertility, obtained from retrospective data on births during the year preceding the census, was broad-peaked and consistent with a population in which the degree of conscious fertility control is negligible. A comparison of rural and urban marital fertility schedules with the Coale-Trussell model suggests, however, that some voluntary control may exist in urban areas.

The regional variations in population density and population growth rates are perhaps the two most well known and distinctive demographic features of the country. Burma's highlands have low population density and low growth rates, whereas the lowlands have high population density and high growth rates. This regional demographic pattern is likely to persist in the absence of speedy economic and technological development and the extension of public health and medical services to all rural areas. Indirect estimates of mortality yield a regional picture characterized by high mortality in the highlands and low mortality in the lowlands; but the corresponding estimates of fertility show a reverse regional pattern. Regional growth rate differentials are largely the product of differences in the rate of natural increase, the amount of interregional migration still being small.

Some implications for future fertility can be conjectured on the basis of estimated current levels, trends, and differentials. For the mass of the less educated rural population, fertility is likely to stay at its present level or may even increase as health programs are expanded. Even in the absence of governmental efforts to encourage family planning, however, the steady rise in the age at marriage is likely to lower fertility somewhat, provided that its effect is not offset by improved maternal health, which tends to raise the fertility level. In urban areas, one can expect further reductions in fertility resulting not only from the rising age at marriage, but also from better education and perhaps the availability of contraceptives.

A decline in child mortality without significant economic development has the effect of increasing the burden of dependency and lowering already low levels of welfare. In Burma the pressure created by improvements in child mortality is felt in the education and employment sectors. The government's policy of universal education implies that an increased share of the national budget is being allocated to the provision of more schools, teachers, and health facilities, thereby undercutting investments in economic development programs. Later, those who leave school will seek employment opportunities. Without the capacity to provide jobs for educated people, Burma faces a more acute problem of unemployment in the future.

Major gaps remain in our knowledge of Burma's population and social institutions. The country's isolationist political stance since 1962 has been a major deterrent to the production of demographic data needed for detailed analyses of Burmese demographic dynamics. The current study has had to rely almost exclusively on data from two censuses and on indirect estimation techniques. The derived measures provide an indication of Burma's demographic situation and pose questions for further research. But uncertainties remain in this data-scarce environment.

REFERENCES

Adas, Michael

1974 *The Burmese Delta: Economic Development and Social Change on an Asian Rice Frontier, 1852–1941.* Madison: University of Wisconsin Press.

Arumugam, Raja Segaran

1976 *Burma: Political Unrest and Economic Stagnation.* Southeast Asian Affairs. Singapore: Heinmann Educational Books (Asia).

Baxter, James

1941 *Report on Indian Immigration.* Rangoon: Superintendent, Government Printing and Stationery.

Brass, William

1969 Disciplining demographic data. In *Proceedings of the International Population Conference,* Vol. 1, pp. 183–204. Liège: International Union for the Scientific Study of Population.

Brass, William, et al.

1968 *The Demography of Tropical Africa.* Princeton: Princeton University Press.

Burney, H.

1842 On the population of the Burman Empire. *Journal of the Royal Statistical Society* 4: 335–347.

Carrier, N. H., and A. M. Farrag

1959 The prediction of errors in census populations for statistically underdeveloped countries. *Population Studies* 12: 240–285.

Coale, Ansley J.

1971 Age patterns of marriage. *Population Studies* 25 (2): 193–214.

Coale, Ansley J., Lee-Jay Cho, and Noreen Goldman

1980 *Estimation of Recent Trends in Fertility and Mortality in the Republic of Korea.* Committee on Population and Demography, Report No. 1. Washington, D.C.: National Academy Press.

Coale, Ansley J., and Paul Demeny

1968 *Regional Model Life Tables and Stable Populations.* Princeton: Princeton University Press.

Coale, Ansley J., and T. James Trussell

1978 Technical note: Finding the two parameters that specify a model schedule of marital fertility. *Population Index* 44 (2): 203–213.

Das Gupta, Prithwis

1975 A general method of correction for age misreporting in census populations. *Demography* 12 (2): 303–312.

Davis, Kingsley

1951 *The Population of India and Pakistan.* Princeton: Princeton University Press.

Demeny, Paul, and F. C. Shorter

1968 *Estimating Turkish Mortality, Fertility, and Age Structure: Application of Some New Techniques.* Publication No. 218, Faculty of Economics. Istanbul: University of Istanbul.

Feldhake, Clarence J.

1954 Well drilling and latrine construction in rural Burma. *U.S. Public Health Reports* 69 (4).

Grantham, S. G.

1923 *Census of India, 1921,* Vol. 10, *Burma,* Pt. 1, *Report.* Rangoon: Superintendent, Government Printing.

Hauser, Philip M.

1942 Population and vital phenomena. *American Journal of Sociology* 48 (3): 309–322.

Hauser, Philip M., and Evelyn M. Kitagawa

1954 Demographic glimpses into Burma, 1952. In *The Interrelations of Demographic, Economic and Social Problems in Selected Underdeveloped Areas: Proceedings of the 1953 Annual Conference.* New York: Milbank Memorial Fund.

Henry, Louis

1961 La fecondité naturelle: Observation, theorie, resultats. *Population* 16 (4): 625–636.

Horwood, Murray P.

1956 Publication health in Burma. Mimeo., Massachusetts Institute of Technology, Cambridge, Mass.

Knodel, John

1983 Natural fertility: Age patterns, levels, and trends. In Rodolfo A. Bulatao and Ronald D. Lee (eds.), *Determinants of Fertiliy in Developing Countries,* Vol. 1, pp. 61–102. New York: Academic Press.

Lee, Ronald D.

1982 Correcting census age distributions: Extensions and applications of the Demeny-Shorter technique. Working Papers of the Program in Population Research, No. 6. Berkeley: Institute of International Studies, University of California.

Lowis, C. C.

1902 *Census of India, 1901*, Vol. 12, *Burma*, Pt. 1, *Report*. Rangoon: Superintendent, Government Printing.

Maung, M. Ismael Khin

1986 *The Population of Burma: An Analysis of the 1973 Census*. Papers of the East-West Population Institute, No. 97. Honolulu: East-West Center.

Maung, U Than, and U Than Shwe

1966 *Fertility Survey of Government Employees in Rangoon*. First Burma Research Congress and Research Paper. Rangoon: Census Department. (In Burmese.)

Ntozi, James Patrick Manyenye

1978 The Demeny-Shorter and three-census methods for correcting age data. *Demography* 15 (4): 509-521.

Preston, S. H., and N. G. Bennett

1983 A census-based method for estimating adult mortality. *Population Studies* 37 (1): 91-104.

Shryock, Henry S., and Jacob S. Siegel

1973 *Methods and Materials of Demography*, Vols. 1 and 2. Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office.

Steinberg, David I.

1981 *Burma's Road Toward Development: Growth and Ideology under Military Rule*. Boulder: Westview Press.

1982 *Burma: A Socialist Nation of Southeast Asia*. Boulder: Westview Press.

Sullivan, Jeremiah M.

1972 Models for estimation of the probability of dying between birth and exact ages of early childhood. *Population Studies* 26 (1): 79-97.

Sundrum, R. M.

1957 *Population Statistics of Burma*. Economic Research Project, Paper No. 3. Rangoon: Department of Economics, Statistics, and Commerce, University of Rangoon.

Trussell, T. James

1975 A Re-estimation of the multiplying factors for the Brass technique for determining childhood survivorship rates. *Population Studies* 29 (1): 97-107.

Union of Burma

1957 *Population and Housing, First Stage Census, 1953*, Vol. 1. Rangoon: Commissioner of the Census.

Union of Burma *(continued)*

1973 *Population Census (Union Volume)*. Rangoon: Department of Immigration and Manpower, Ministry of Home and Religious Affairs.

1975 *Burma: Country Health Program*. Country Profile. Rangoon: Ministry of Health.

1977a *An Analysis of Country Health Programming Experience in Burma*. Rangoon: Ministry of Health.

1977b *Statistical Abstract, 1976*. Rangoon: Central Statistical Organization.

1983a *Population Census (Rangoon City)*. Rangoon: Department of Immigration and Manpower, Ministry of Home and Religious Affairs.

1983b *Population Census (Union Volume)*. Rangoon: Department of Immigration and Manpower, Ministry of Home and Religious Affairs.

1983c *1983 Population Census (Advanced Release)*. Rangoon: Central Census Committee, Ministry of Home and Religious Affairs.

United Nations (UN)

1954 *Demographic Yearbook*. Statistical Office, Department of International Economics and Social Affairs. New York.

1955 *Methods of Appraisal of Quality of Basic Data for Population Estimates*. Population Branch, Department of Economic and Social Affairs. New York.

1959 *Demographic Yearbook*. Statistical Office, Department of International Economics and Social Affairs. New York.

1964 *Demographic Yearbook*. Statistical Office, Department of International Economics and Social Affairs. New York.

United Nations (UN) and National Research Council (NRC)

1983 *Indirect Techniques for Demographic Estimation*. Manual X, Population Studies, No. 81. UN Department of International Economic and Social Affairs and NRC Committee on Population and Demography. New York.

Vaidyanathan, L. S.

1931 *Actuarial Report on Age Returns and Life Tables for India and for Provinces. Census of India, 1931*, Vol. 1, Pt. 1. India, Registrar General.

Webb, C. Morgan

1912 *Census of India, 1911*, Vol. 9, *Burma*, Pt. 1., *Report*. Rangoon: Superintendent, Government Printing.

Young, Allyn A.

1904 A discussion of age statistics. *United States Bureau of the Census Bulletin*, No. 13. *Twelfth Census of the United States*. Washington, D.C.

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